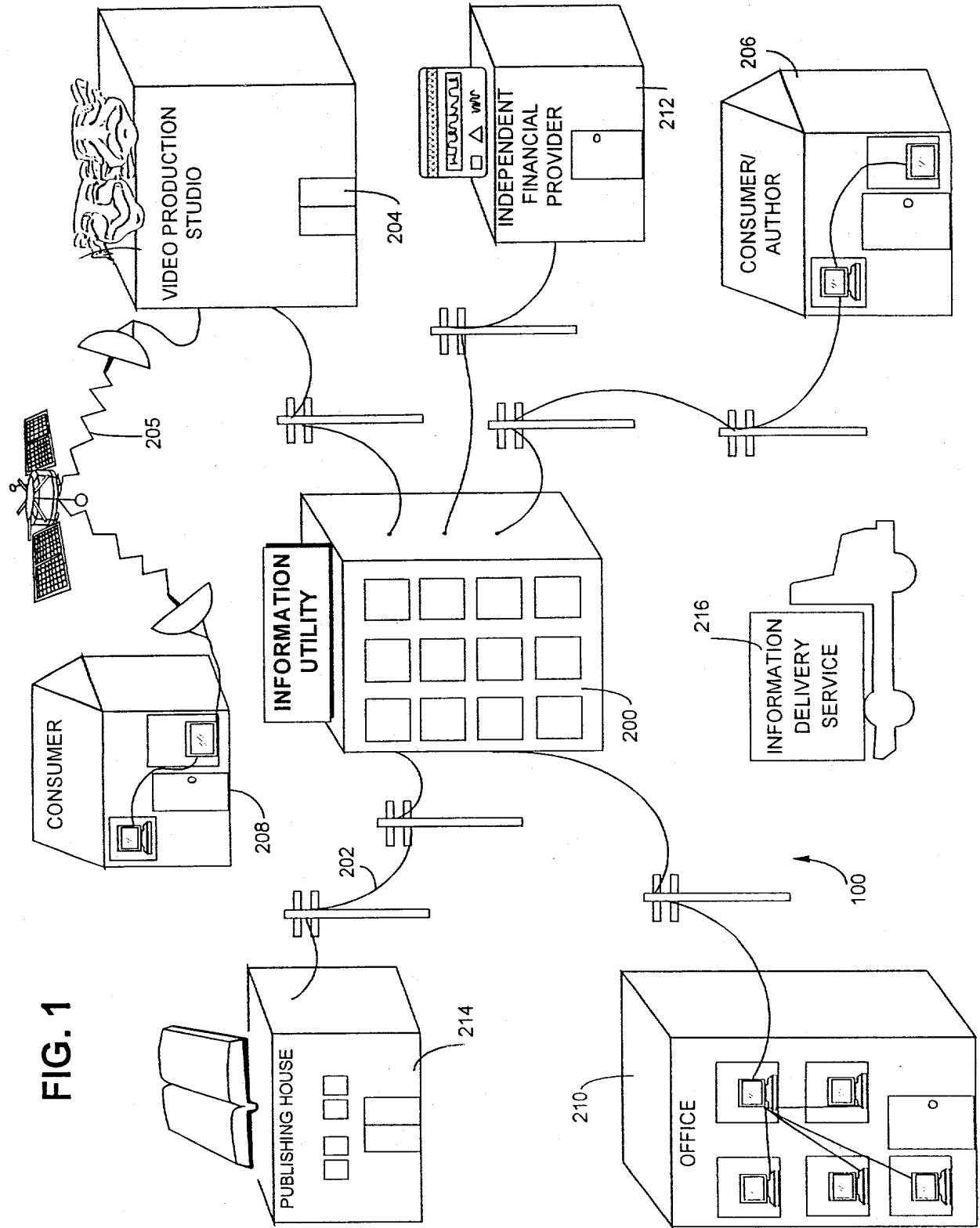


FIG. 1



**FIG. 1A**

TO VDE PARTICIPANT 1      TO VDE PARTICIPANT N

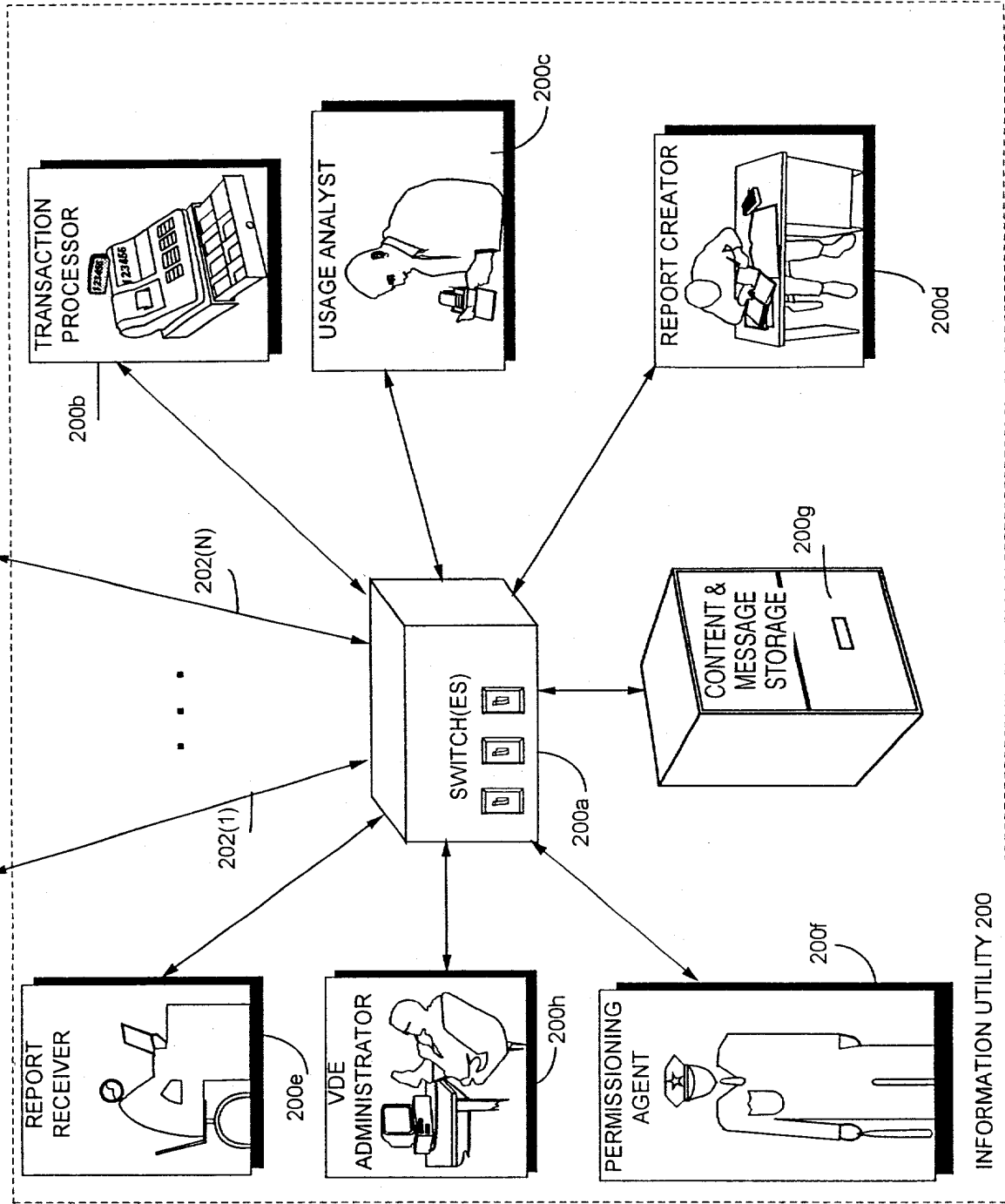


FIG. 2

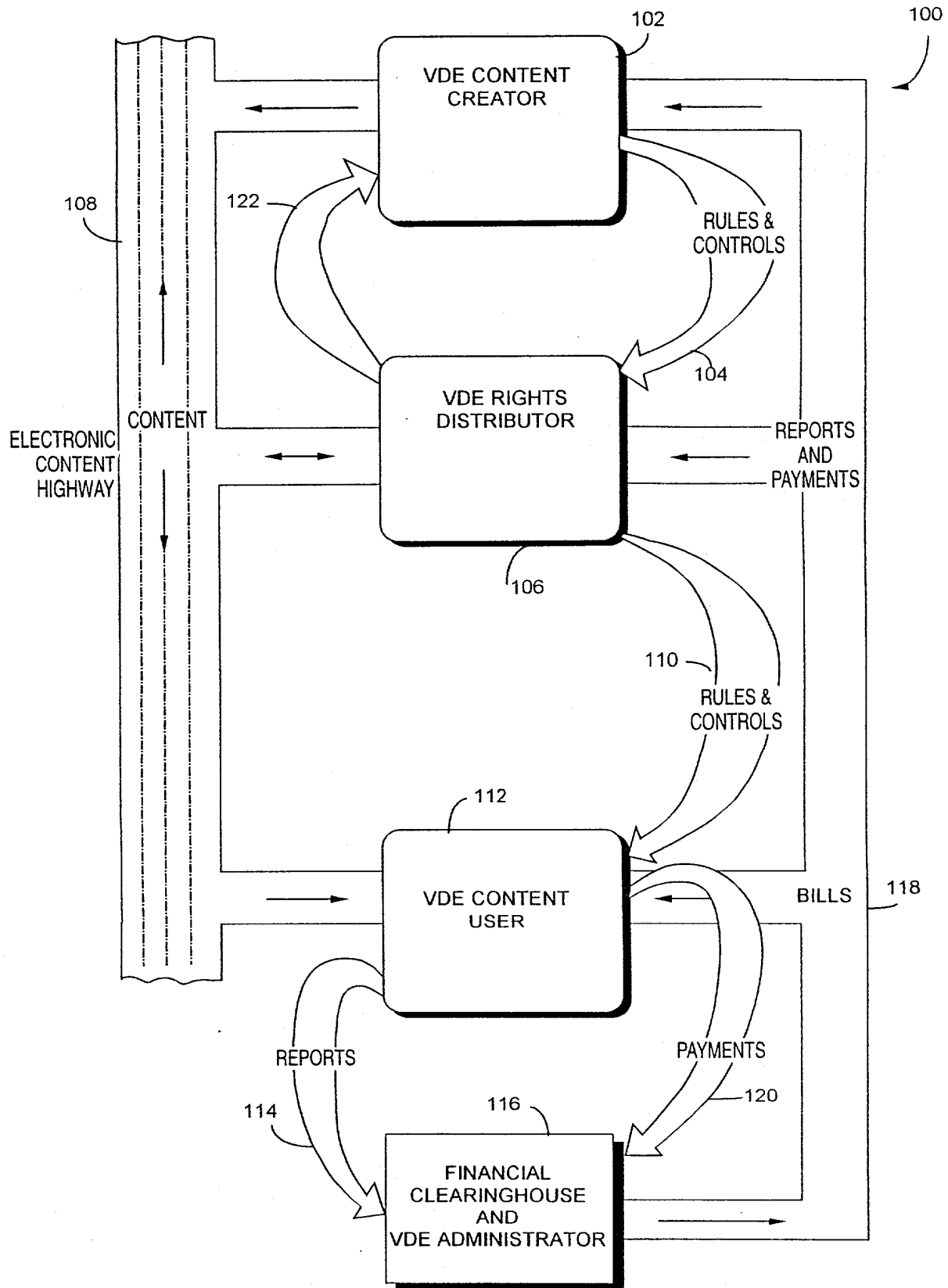
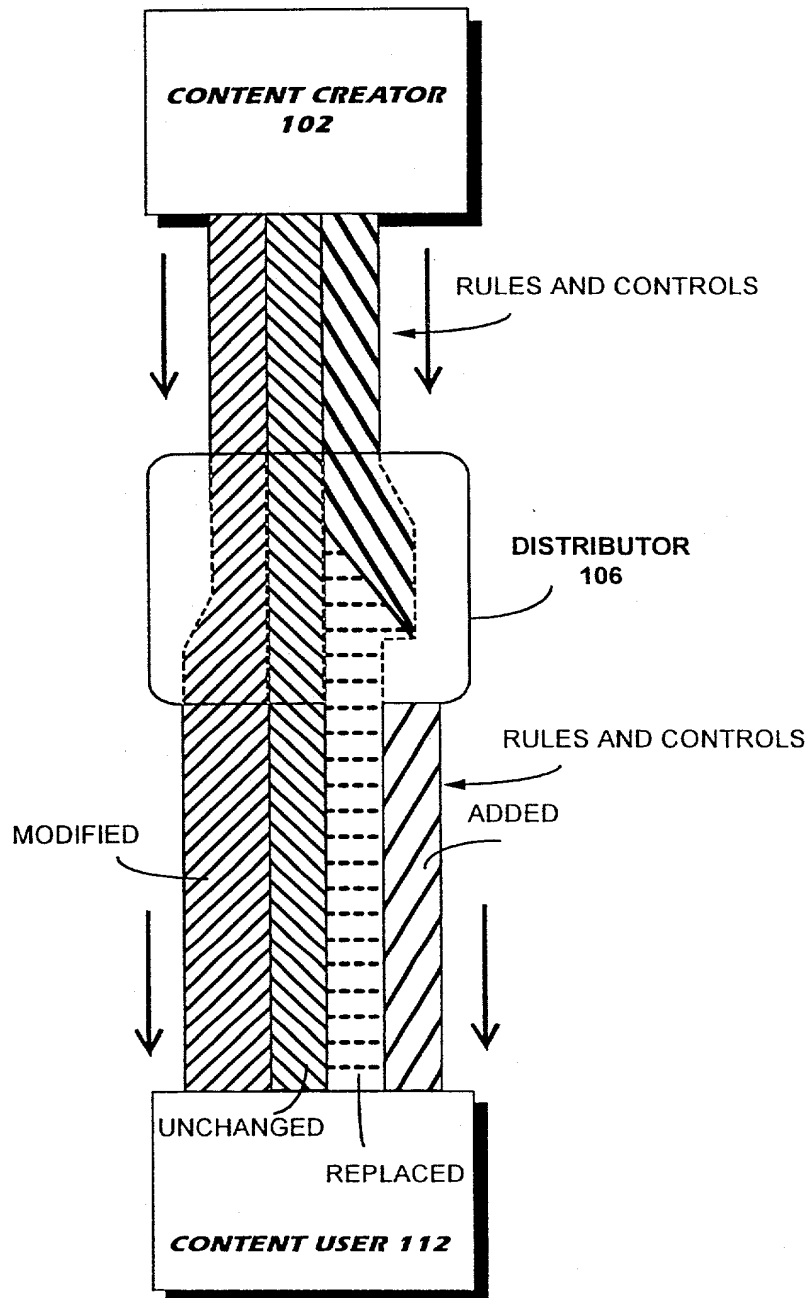
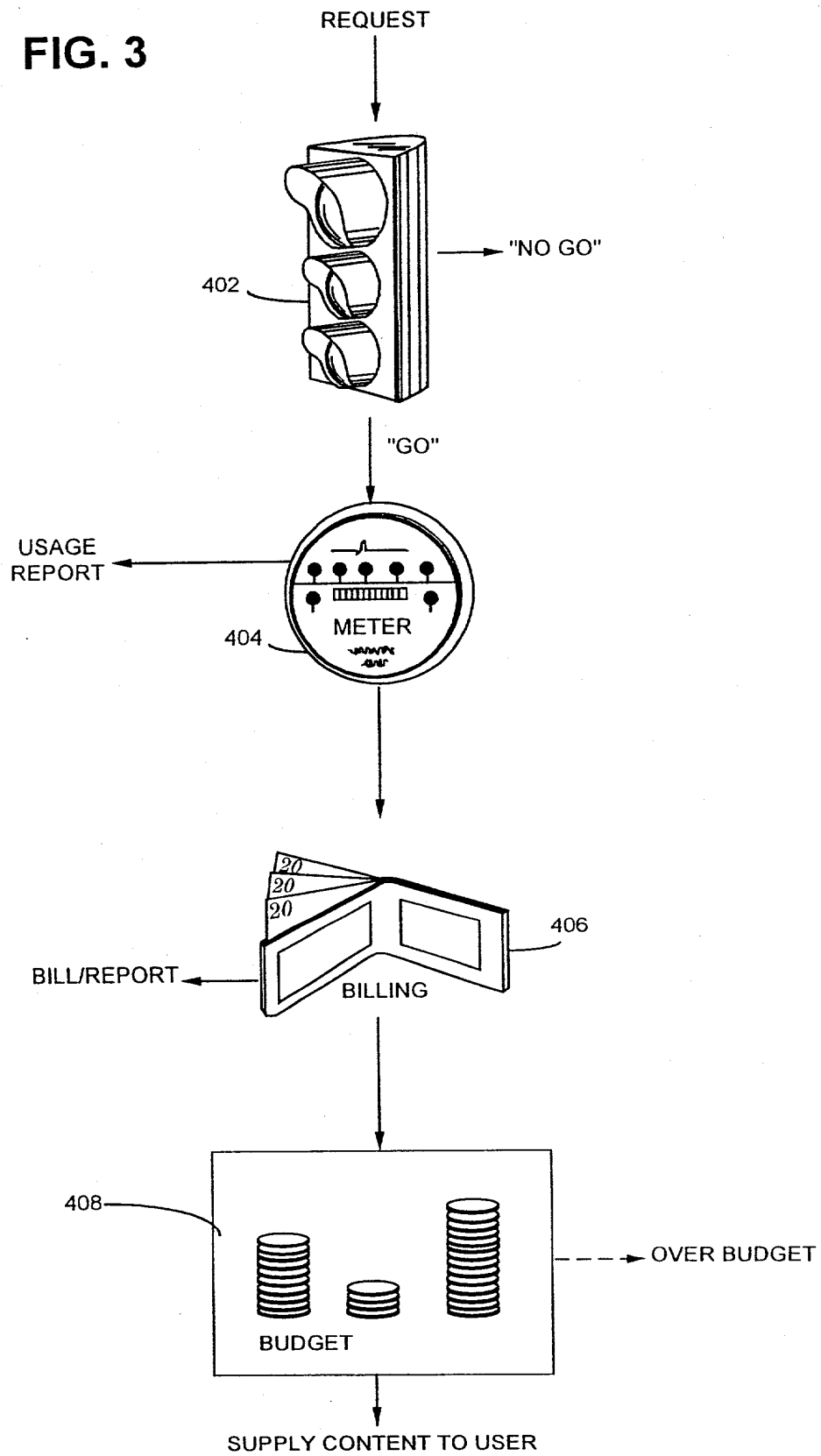


FIG. 2A



**FIG. 3**



Small text at the top of the page, likely a header or page number.

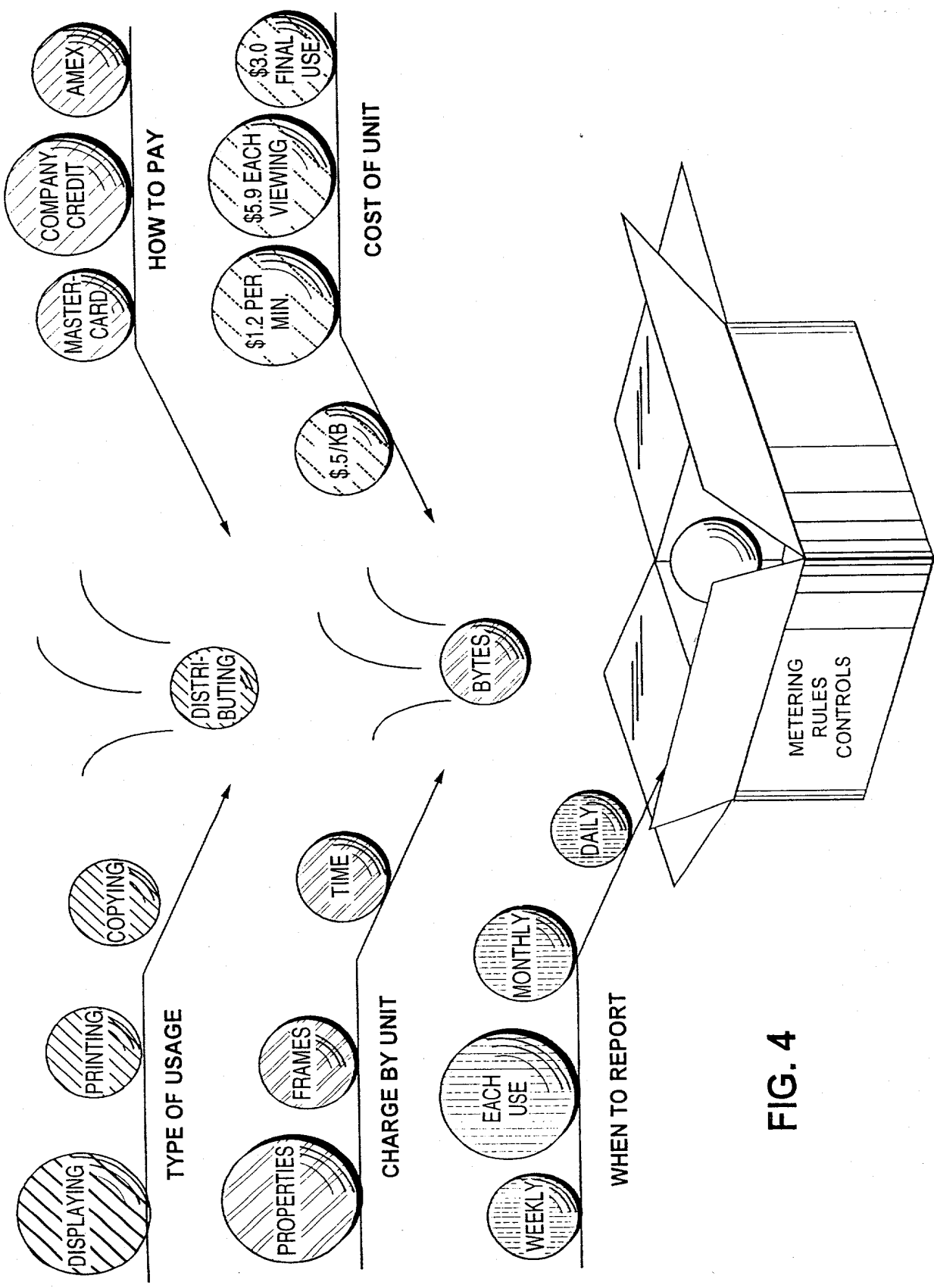


FIG. 4

**FIG. 5A**

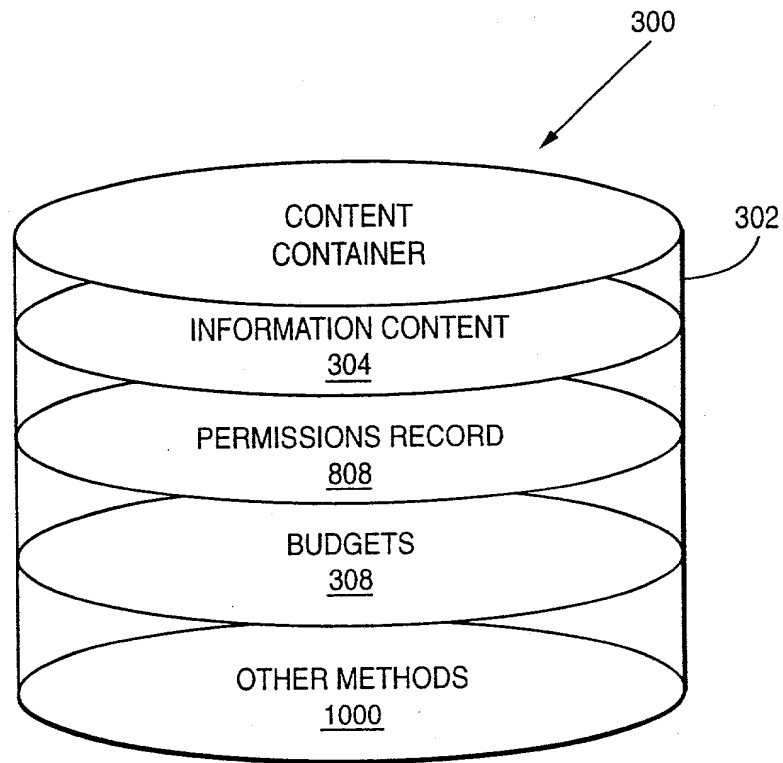
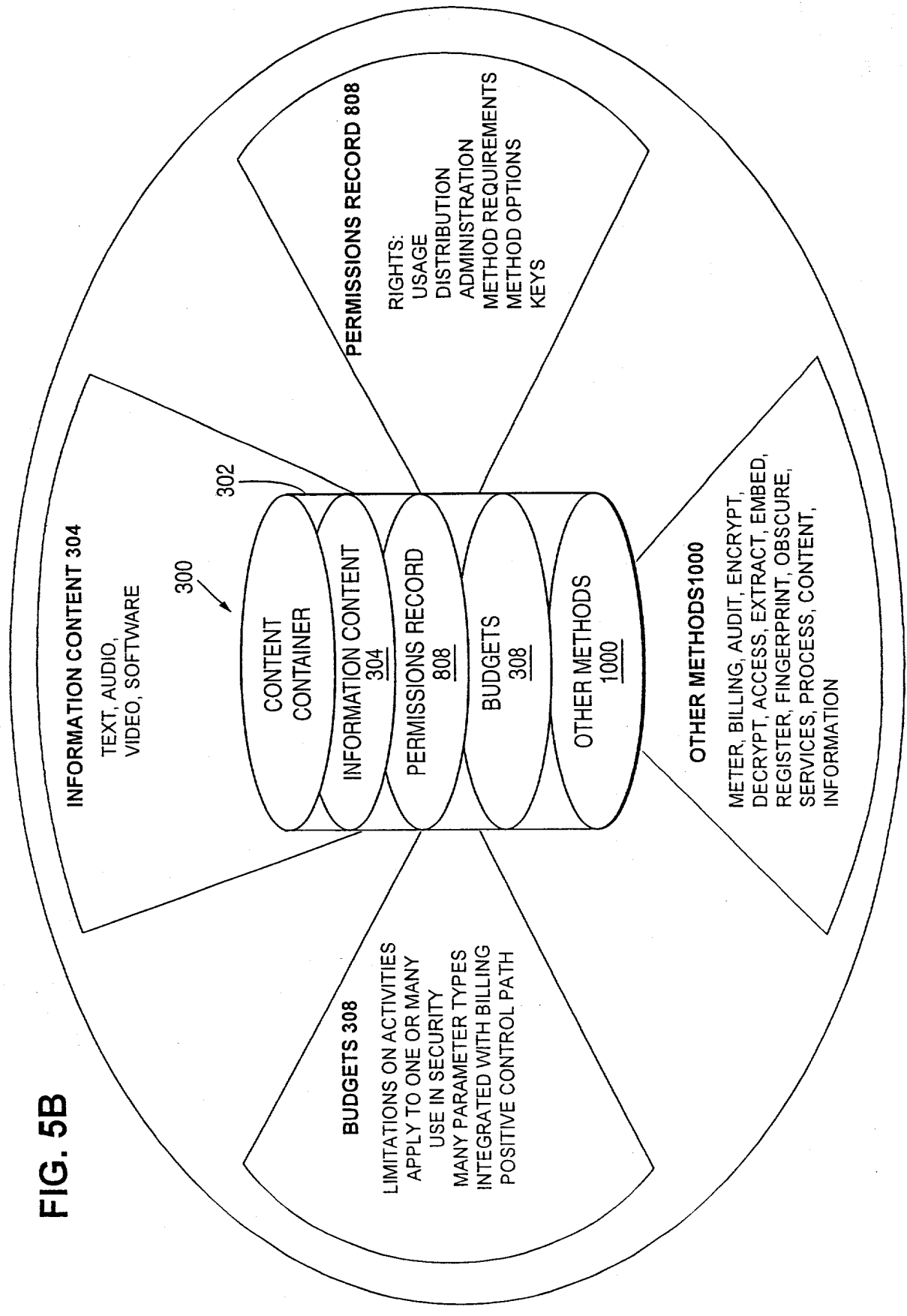


FIG. 5B is a diagram of a system 300. The system 300 includes a content container 302, an information content 304, a permissions record 808, budgets 308, and other methods 1000. The system 300 is configured to manage digital content and associated permissions, budgets, and methods.

FIG. 5B





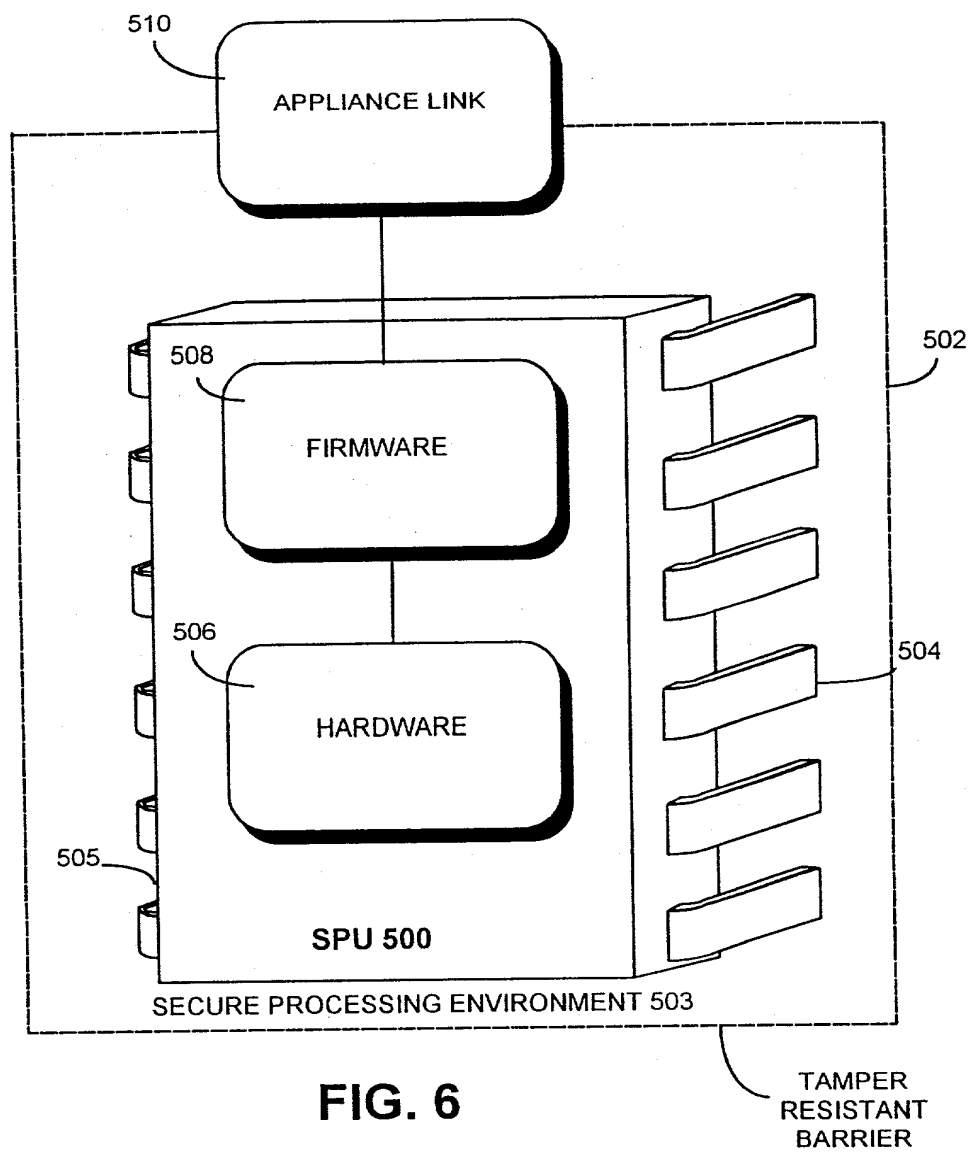
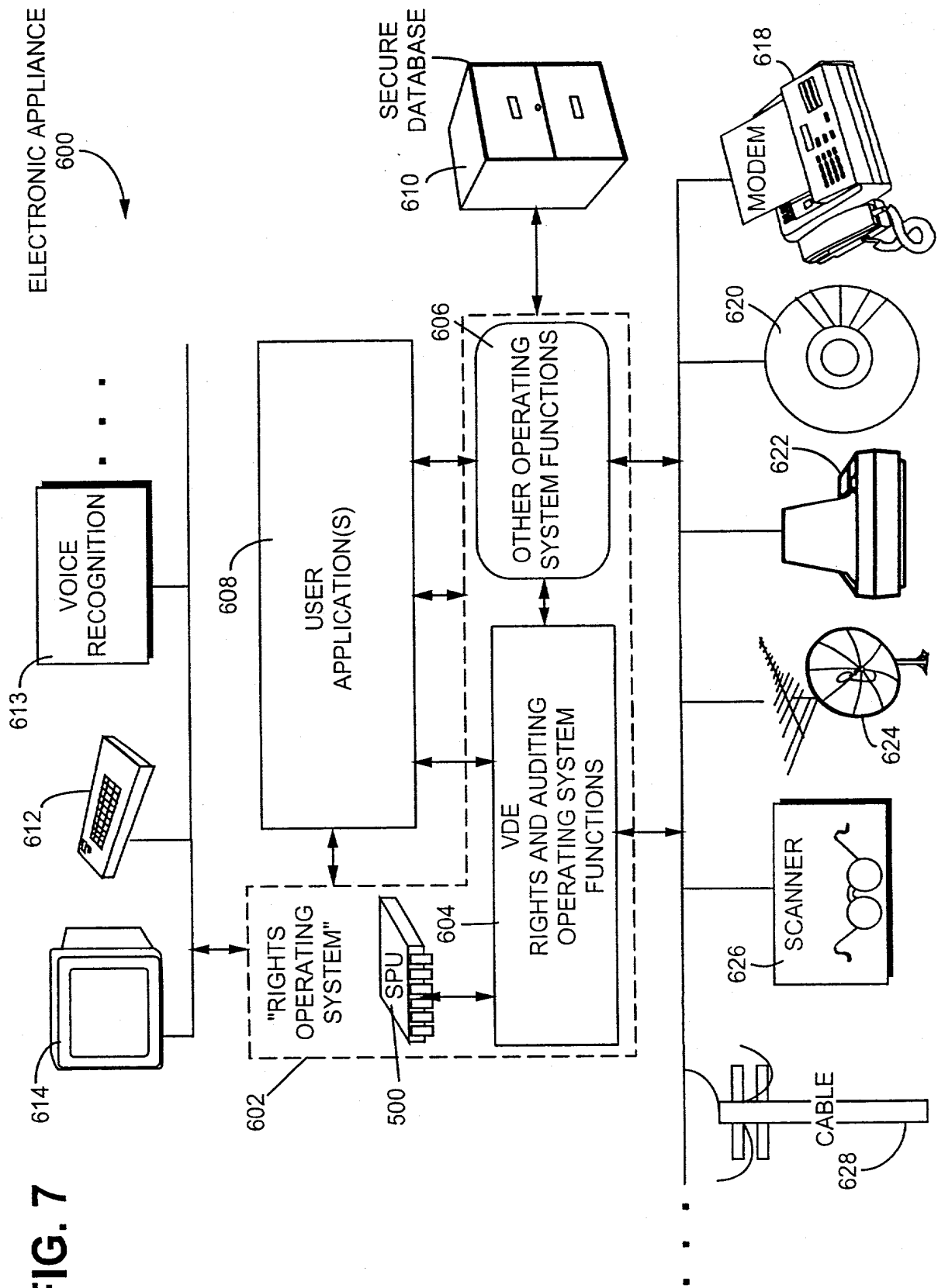


FIG. 7



**FIG. 8**

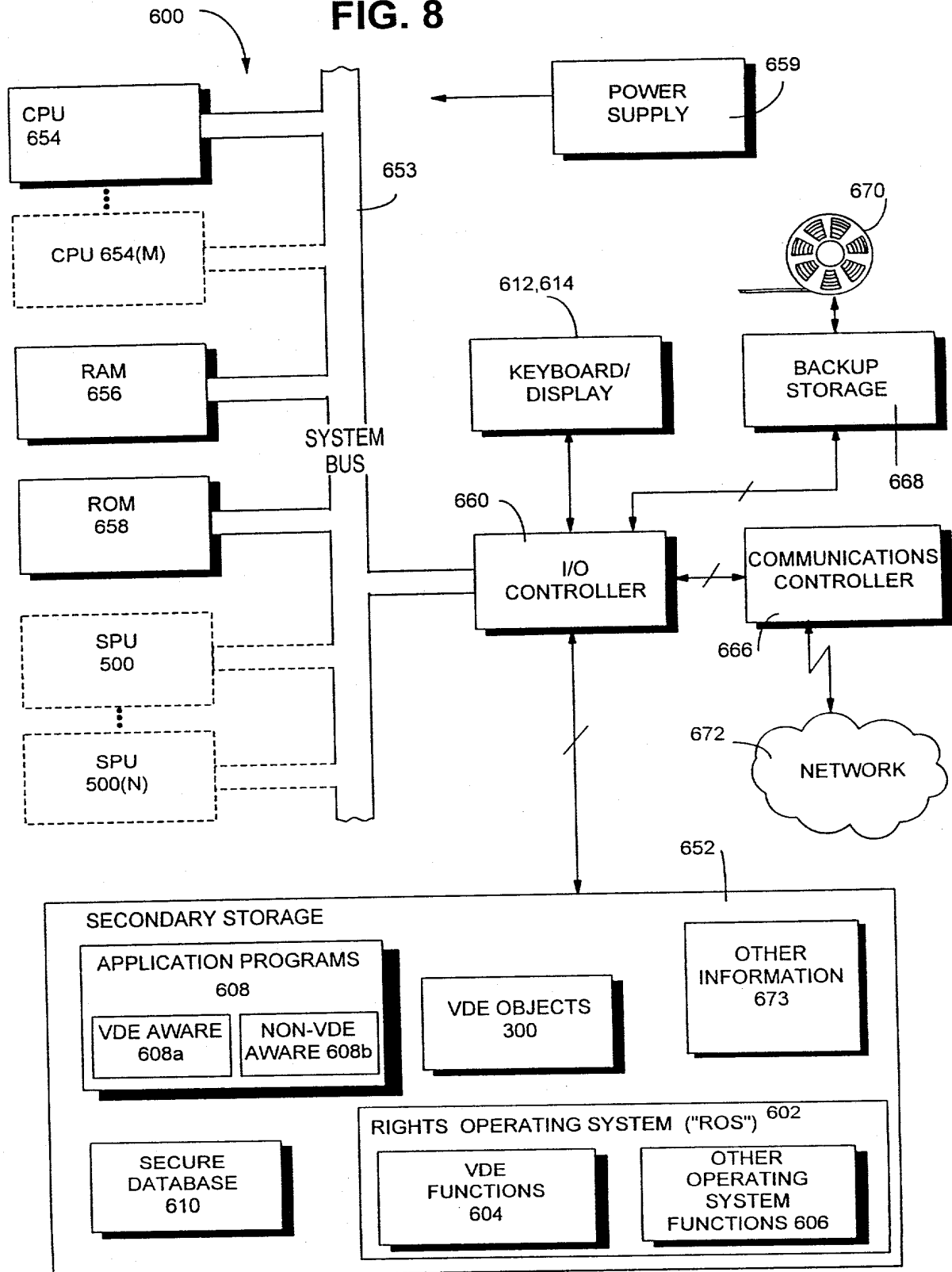


FIG. 9 is a block diagram of a system 500, such as a computer system, including a system unit 502 and a display unit 504. The system unit 502 includes a microprocessor 520, a bus interface unit (BIU) 530, a DMA controller 526, a compression/decompression engine 546, a pattern matching engine 524, a random number generator 522, and an arithmetic accelerator 544. The display unit 504 includes a monitor 506 and a keyboard 508. The system unit 502 is connected to the display unit 504 via a system bus 532. The system unit 502 also includes a ROM 532A, an EEPROM/FLASH 532B, RAM 534a, and NVRAM 534b. The system unit 502 is connected to a network 652 via a network interface unit 530.

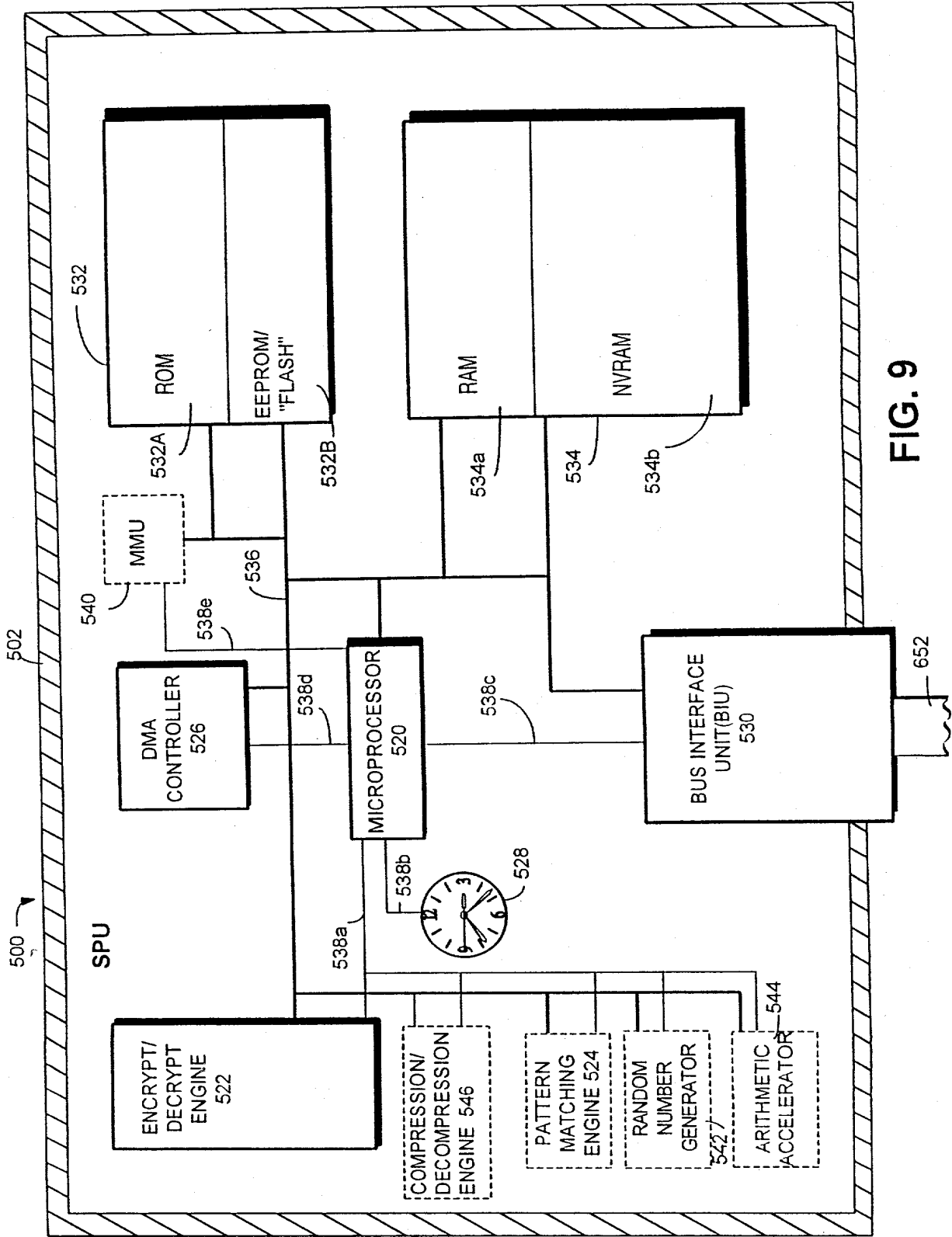


FIG. 9

FIG. 9A

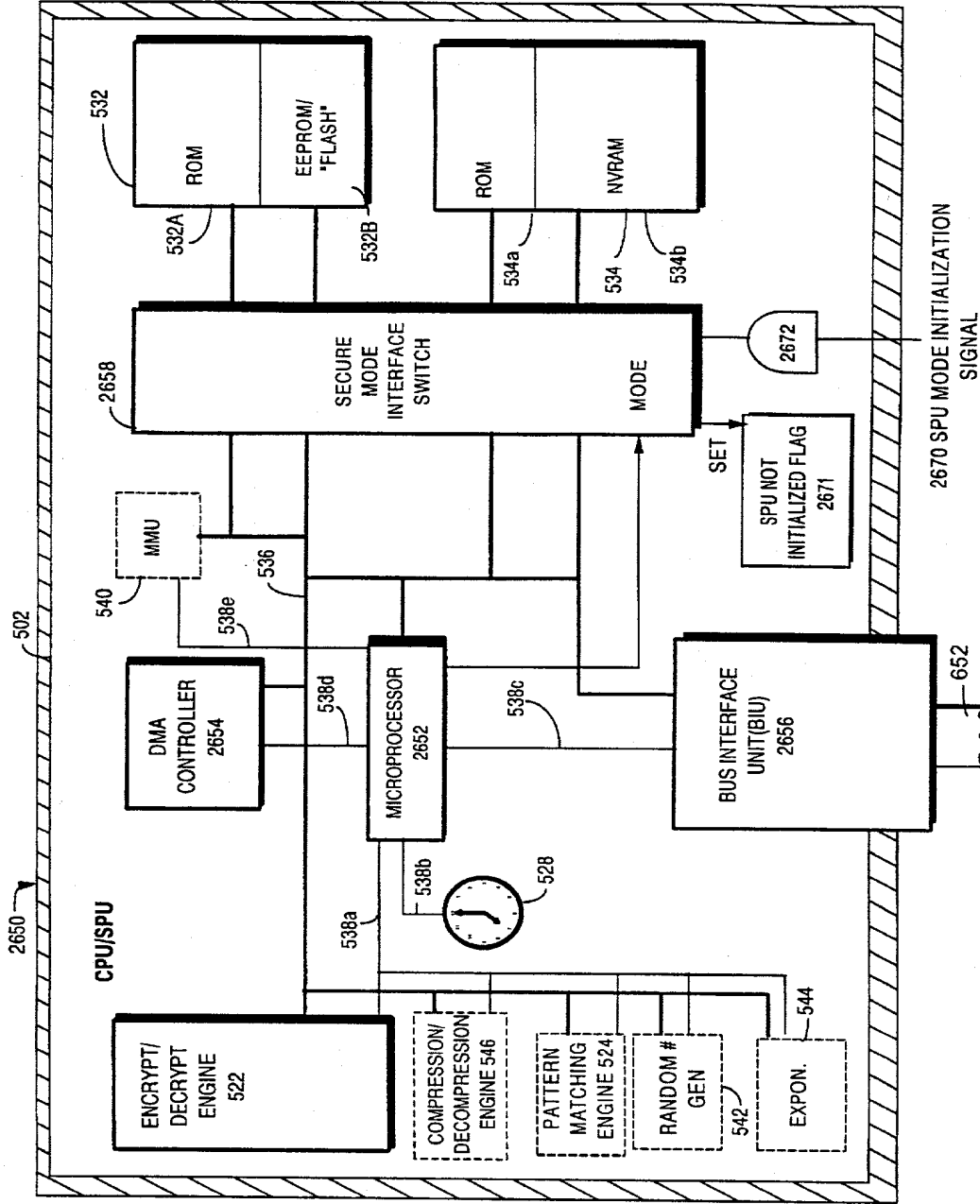
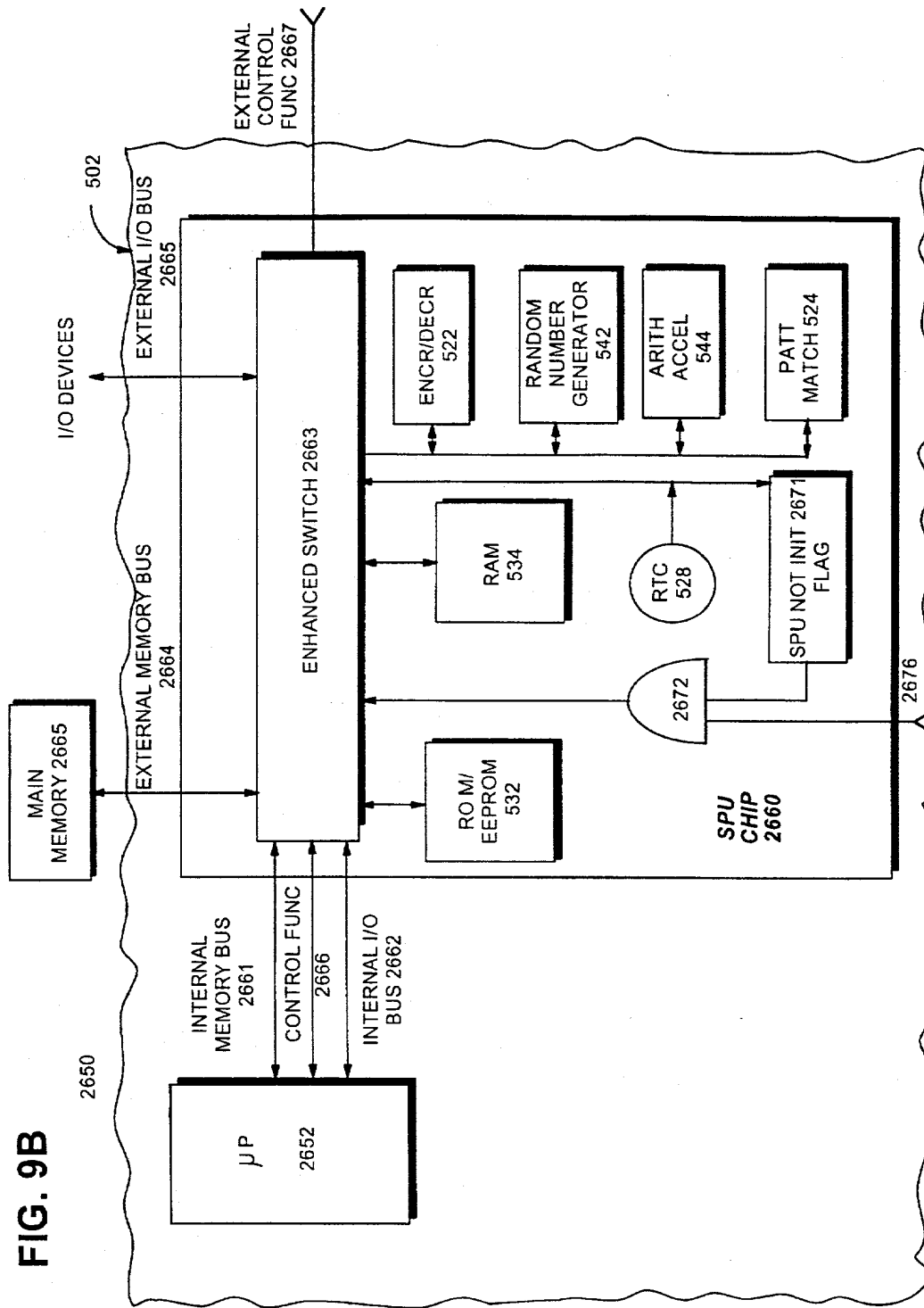


FIG. 9B



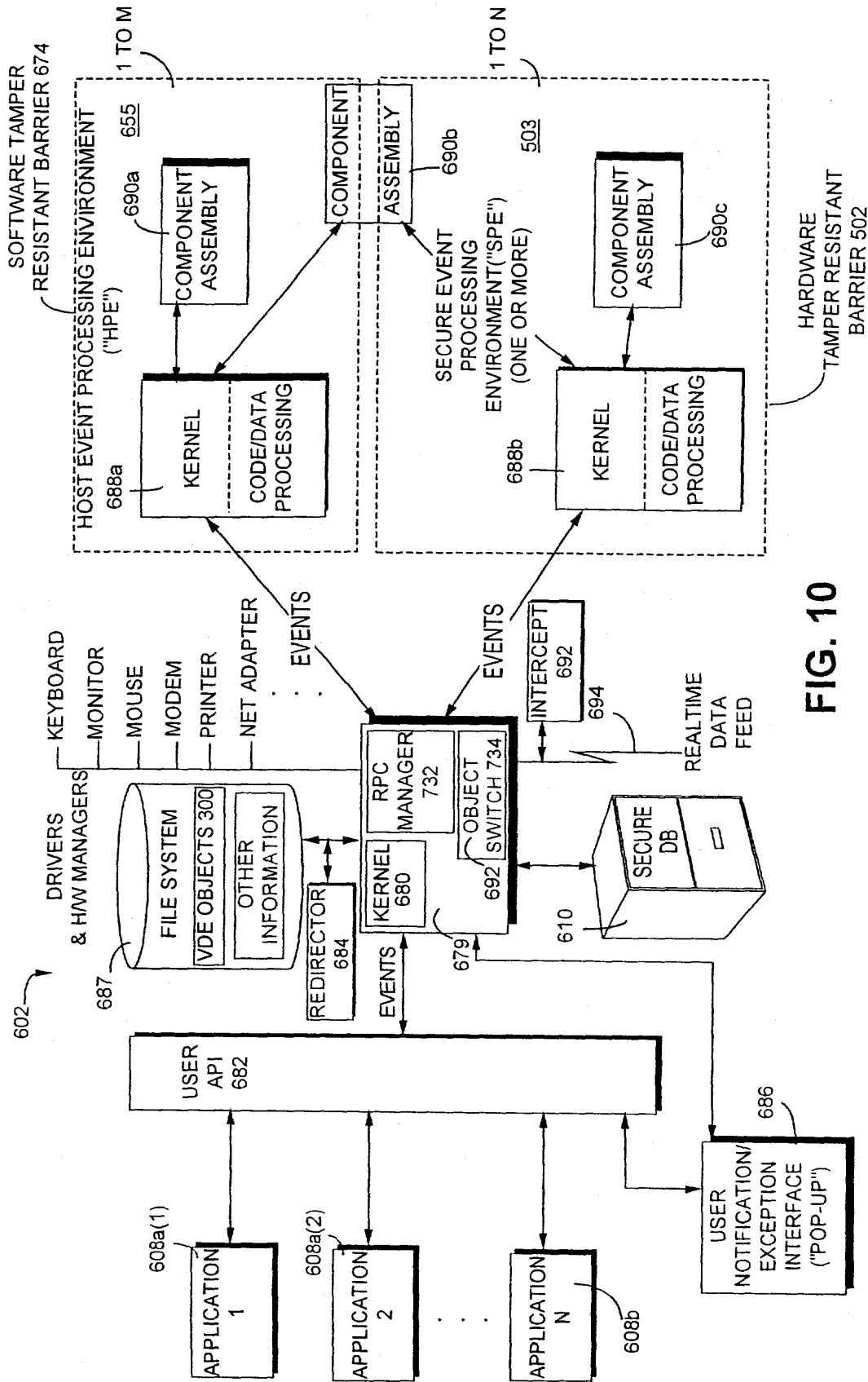


FIG. 10

FIG. 11A

FIG. 11A

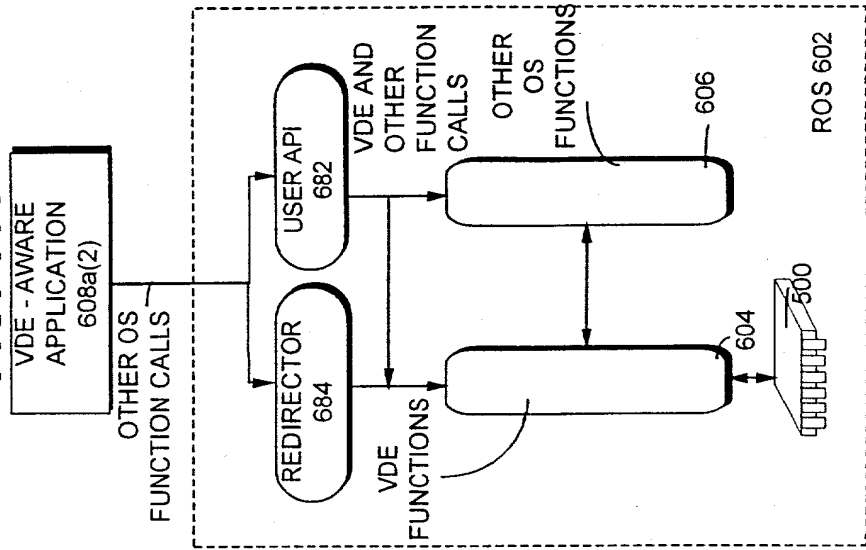


FIG. 11B

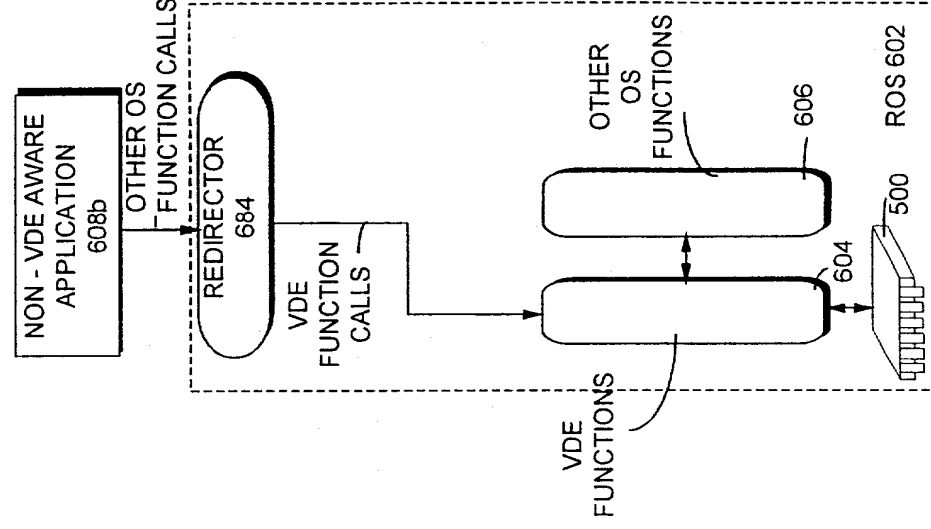
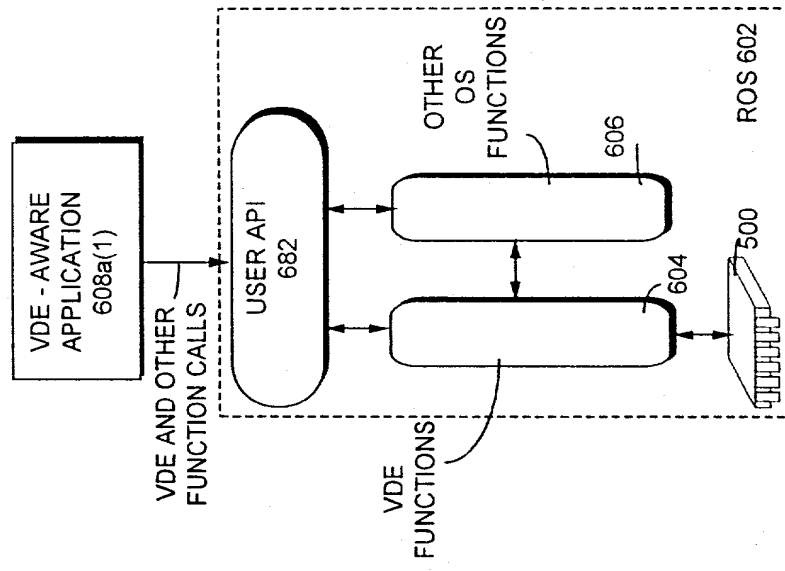


FIG. 11C





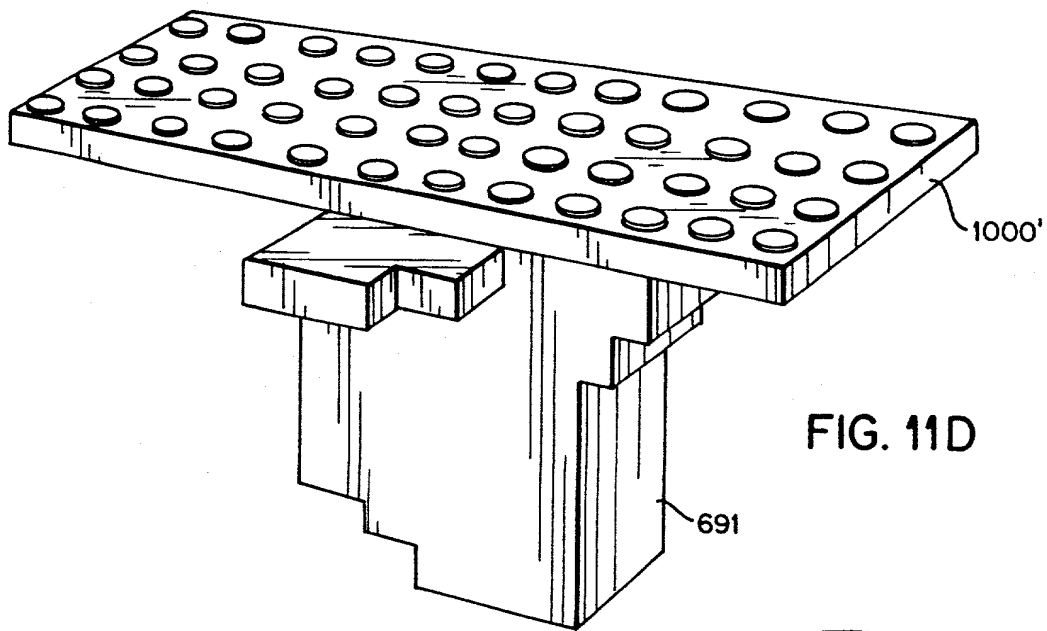


FIG. 11D

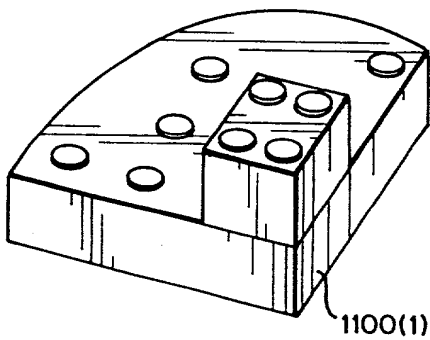


FIG. 11E

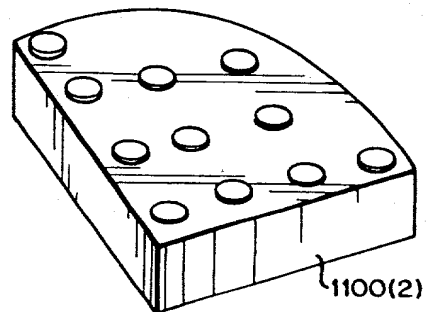


FIG. 11F

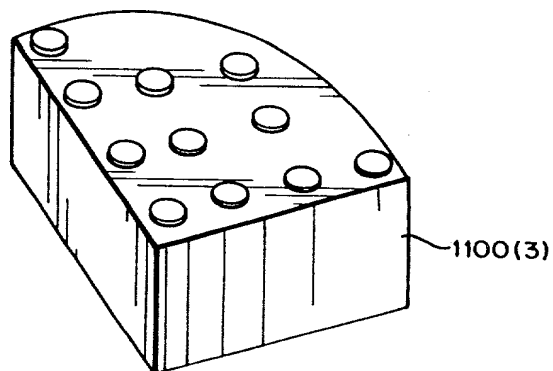


FIG. 11G

FIG. 11H is a perspective view of a first embodiment of a modular building block 1200(1) and a second embodiment of a modular building block 1200(2) and a third embodiment of a modular building block 1202(1). The modular building block 1200(1) and 1200(2) are shown in a perspective view, and the modular building block 1202(1) is shown in a perspective view. The modular building block 1200(1) and 1200(2) are shown in a perspective view, and the modular building block 1202(1) is shown in a perspective view.

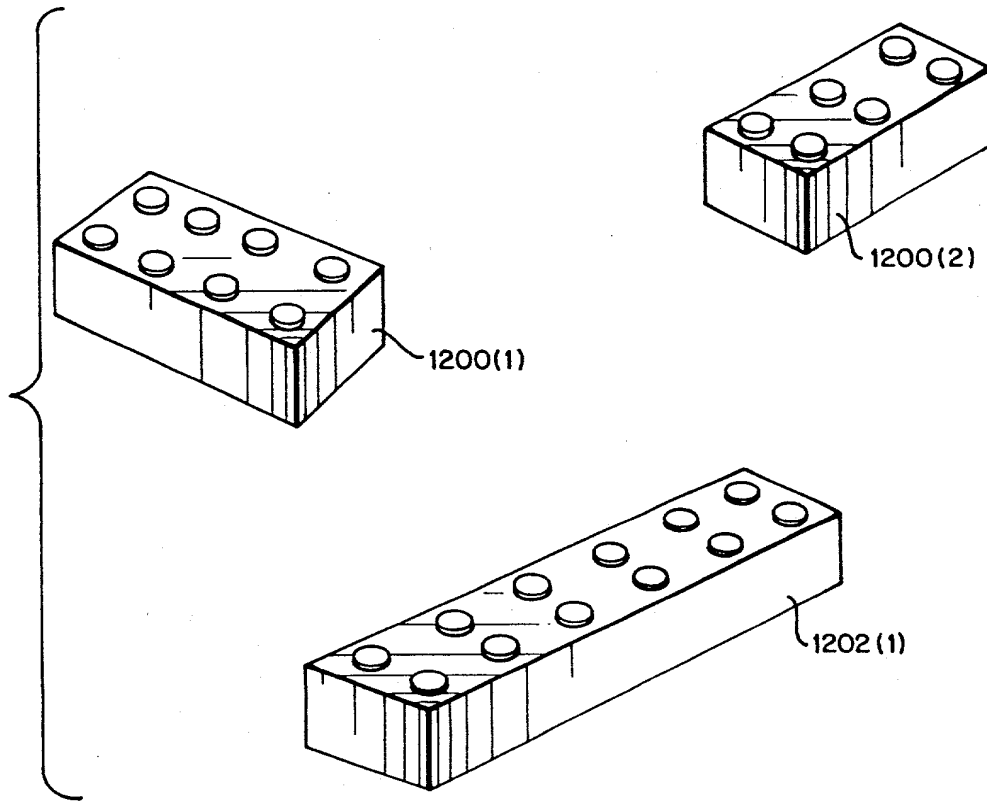
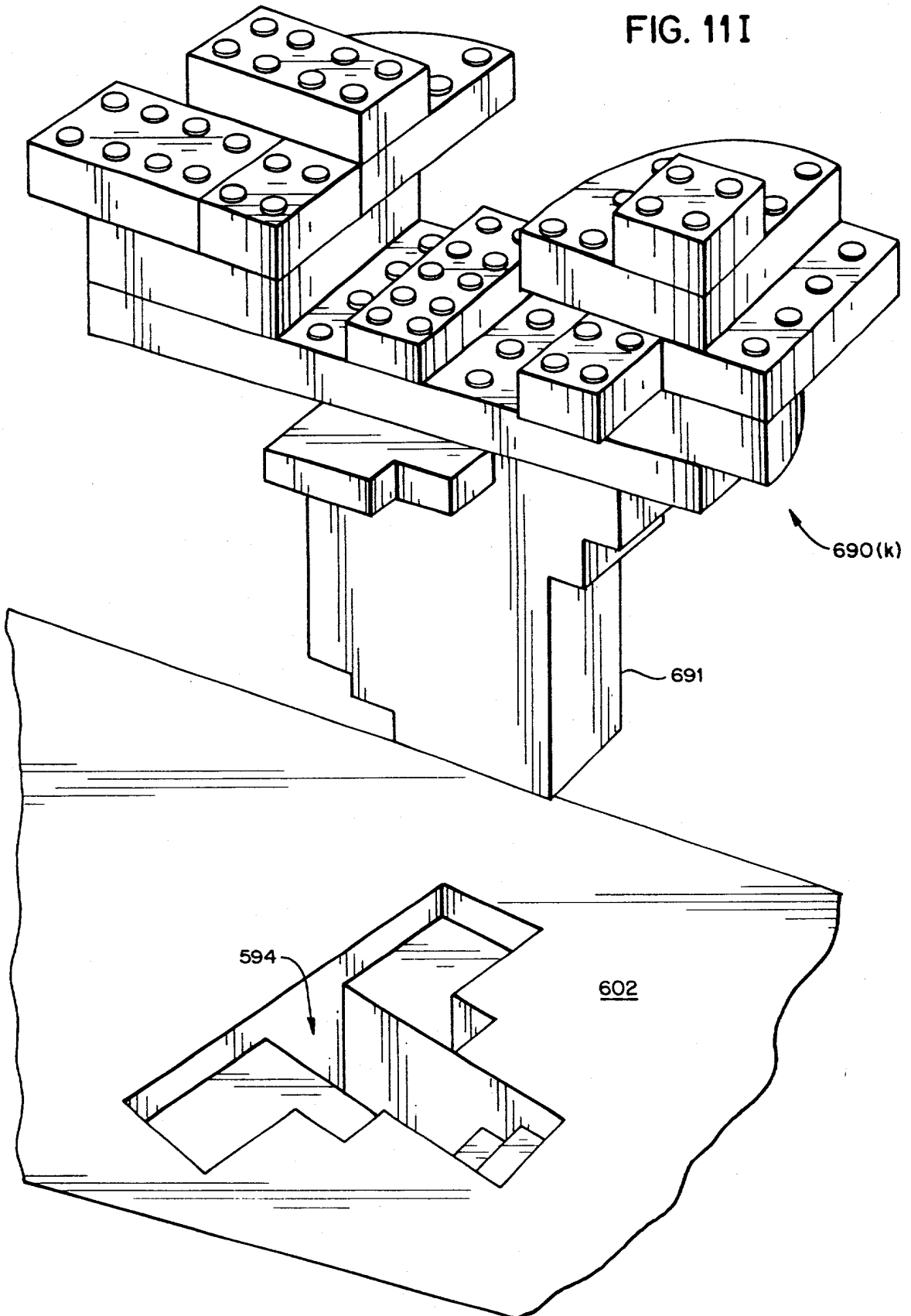


FIG. 11H

FIG. 11I





FILE SYSTEM 687

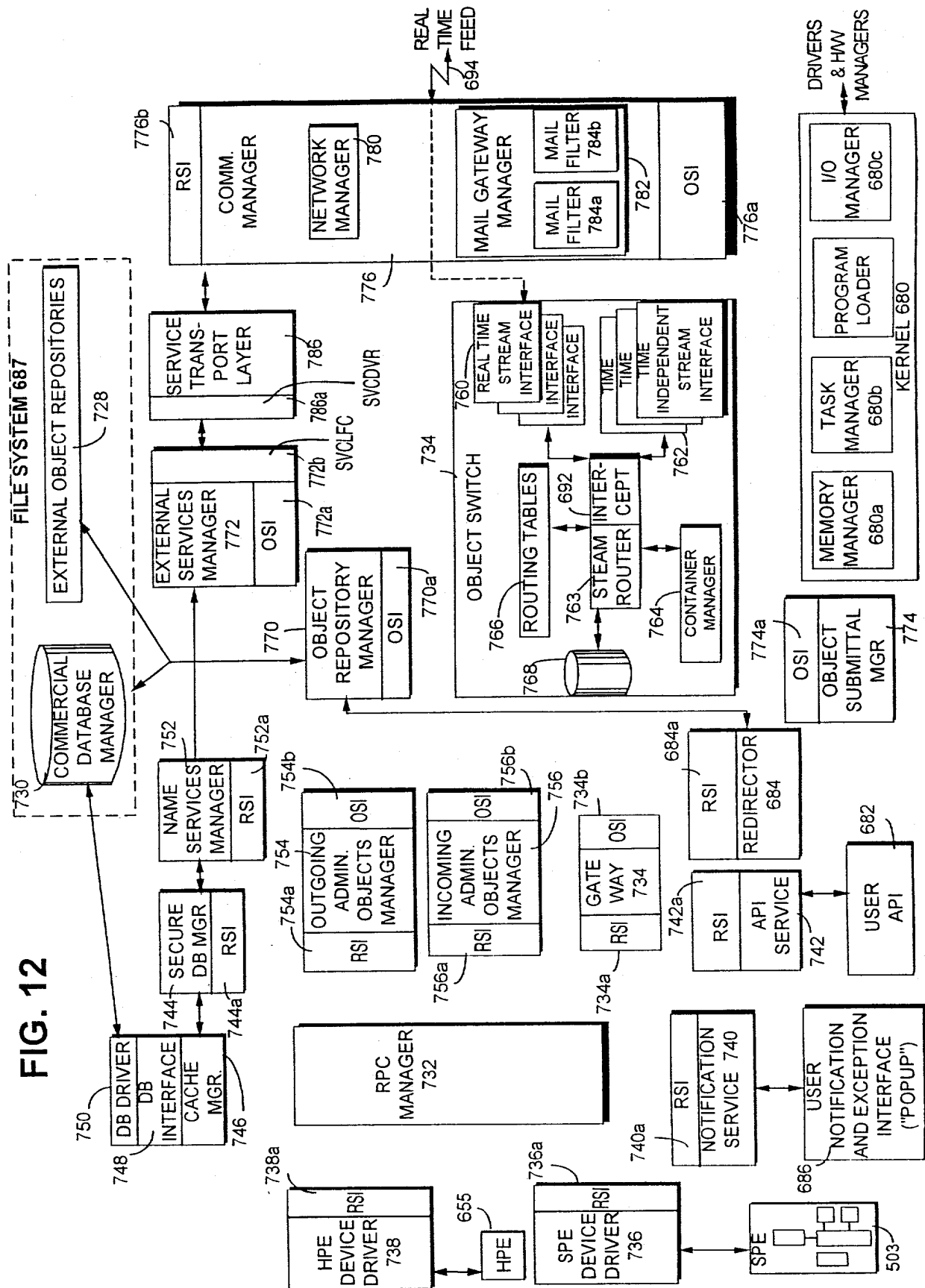


FIG. 12A

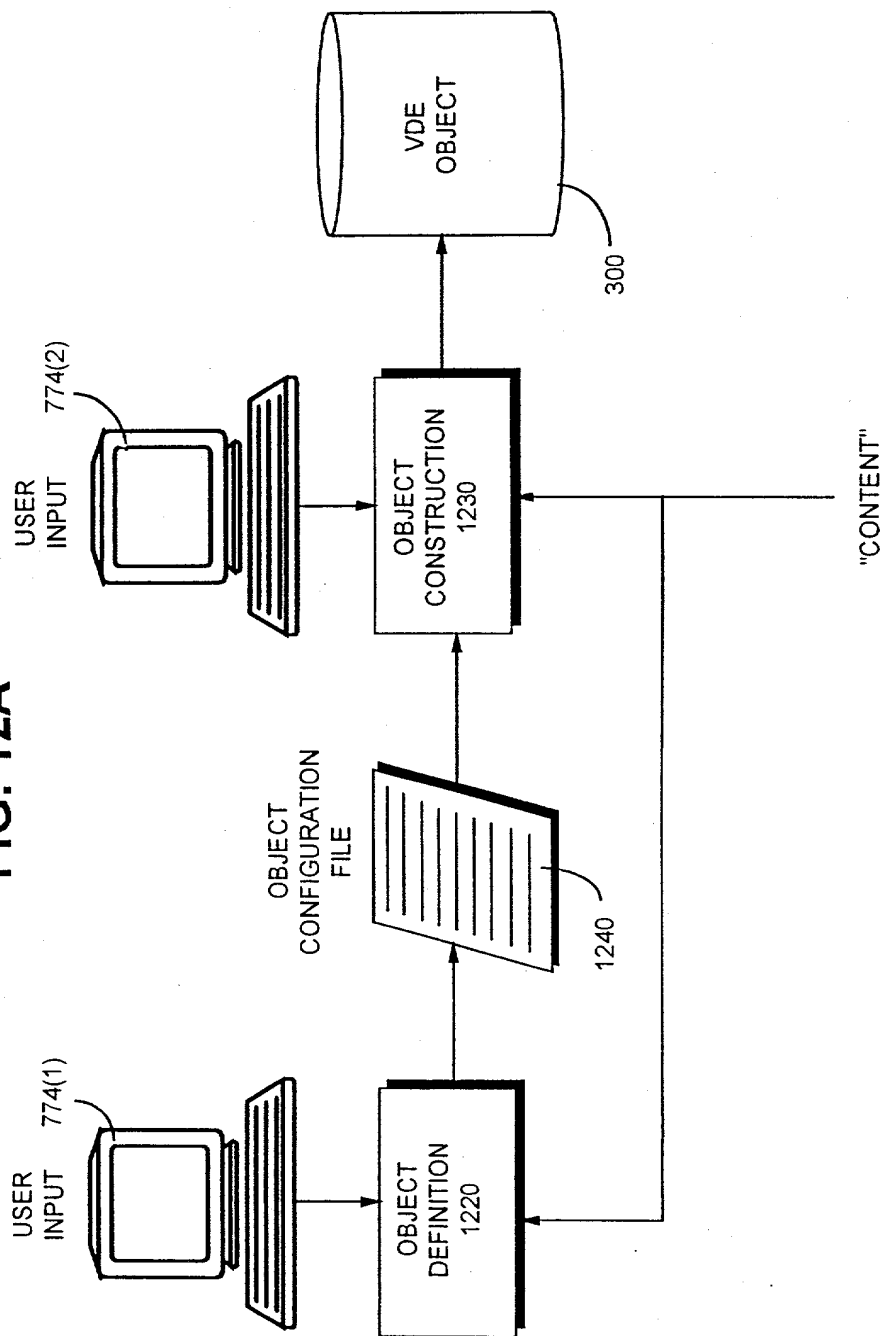
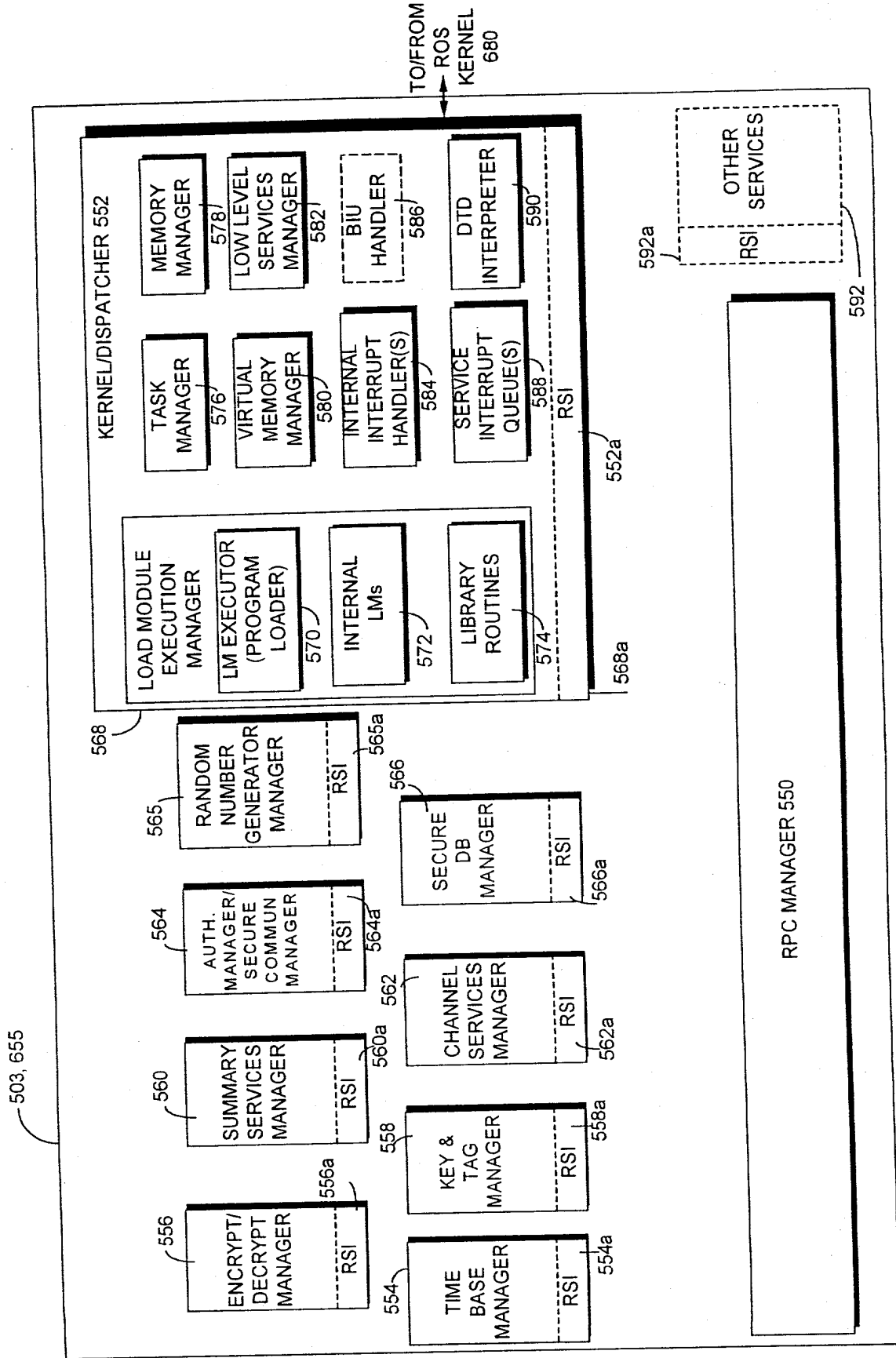


FIG. 13



# FIG. 14A

<b>DEVICE FIRM WIRE LOW LEVEL SERVICES 582</b>
INITIALIZATION
POST
DOWNLOAD CHALLENGE/RESPONSE AND AUTHENTICATION
RECOVERY
EEPROM/FLASH MEMORY MANAGER
<b>KERNEL/DISPATCHER 552</b>
INITIALIZATION
TASK MANAGER 576 (SLEEP/AWAKE/CONTEXT SWAP)
INTERRUPT HANDLER 584 (TIMER/BIU/POWER FAIL/WATCHDOG TIMER/ENCRYPTION COMPLETED)
BIU HANDLER 586
<b>MEMORY MANAGER 578</b>
INITIALIZATION (SETTING MMU TABLES
ALLOCATE
DEALLOCATE
<b>VIRTUAL MEMORY MANAGER 580</b>
SWAP BLOCK PAGING
EXTERNAL MODULE PAGING
MEMORY COMPRESS
<b>RPC AND TABLES 550</b>
INITIALIZATION
MESSAGING CODE /SERVICES MANAGER
SEND/RECEIVE
STATUS
RPC DISPATCH TABLE
RPC SERVICE TABLE

•  
•  
•

<b>TIME BASE MANAGER 554</b>
<b>ENCRYPTION/DECRYPTION MANAGER 556</b>
PK
BULK
<b>KEY AND TAG MANAGER 558</b>
KEY STORAGE IN EEPROM
KEY LOCATOR
KEY GENERATOR
CONVOLUTION ALGORITHM
<b>SUMMARY SERVICES MANAGER 560</b>
EVENT SUMMARIES
BUDGET SUMMARIES
DISTRIBUTER SUMMARY SERVICES
<b>CHANNEL SERVICES MANAGER 562</b>
CHANNEL HEADERS
CHANNEL DETAILS
<b>LOAD MODULE EXECUTION SERVICES 568</b>
<b>AUTHENTICATION MANAGER/SECURE COMMUNICATION MANAGER 564</b>
<b>DATABASE MANAGER 566</b>
MANAGEMENT FILE SUPPORT
TRANSACTION AND SEQUENCE NUMBER SUPPORT
SRN/ HASH
<b>DTD INTERPRETER 590</b>
<b>LIBRARY ROUTINES 574</b>
I/O CALLS (STRING SEARCH ETC.)
MISC. ITEMS THAT ARE PROBABLY LIBRARY ROUTINES
TAG CHECKING, MD5, CRC'S
<b>INTERNAL LM'S 572 FOR BASIC METHODS</b>
METER LOAD MODULE(S)
BILLING LOAD MODULE(S)
BUDGET LOAD MODULE(S)
AUDIT LOAD MODULE(S)
READ OBJECT LOAD MODULE(S)
WRITE OBJECT LOAD MODULE(S)
OPEN OBJECT LOAD MODULE(S)
CLOSE OBJECT LOAD MODULE(S)

•  
•  
•



# FIG. 14B

•  
•  
•

PUBLIC KEY AND PRIVATE KEY, SYSTEM ID, AUTHENTICATION CERTIFICATE, VDE SYSTEM PUBLIC KEY, PRIVATE DES KEY
TOP LEVEL KEYS FOR OBJECTS
TOP LEVEL BUDGET INFO
METER SUMMATION VALUES
KEY RECORDS FOR BUDGET RECORDS, AUDIT RECORDS, STATIC MANAGEMENT RECORDS, UPDATED MANAGEMENT RECORDS, ETC.
• • •
DEVICE DATA TABLE
SITE ID
TIME
ALARMS
TRANSACTION/SEQUENCE #'S
MISCELLANEOUS
MEMORY MAP
MAP METERS
LM/UDT TABLE
TASK MANAGER 576
CHANNEL(S)
SUMMARY SERVICES 560
SECURE DATABASE TAGS
SRN ENTRIES
HASH ENTRIES

•  
•  
•

# FIG. 14C

STACK	
•	
CHANNEL SWAP BLOCK	CHANNEL LM
	CHANNEL HEADER & D1
CONTROL SWAP BLOCK	CONTROL LM
	CONTROL D1
	COMMIT LM
	COMMIT D1, D2, D3
EVENT SWAP BLOCK	EVENT LM
	MAP TABLE (SINGLE) D1
METER SWAP BLOCK	METER LM
	METER UDE DELTA,DELTA'
	METER TRAIL LM
	METER TRAIL UDE DELTA,DELTA'
BUDGET SWAP BLOCK	METER LM
	METER UDE DELTA,DELTA'
	METER TRAIL LM
	METER TRAIL UDE DELTA,DELTA'
BILLING SWAP BLOCK	BILLING LM
	METER UDE
	BUDGET UDE
	BILLING TABLE UDE
	BILLING TRAIL LM
	BILLING TRAIL UDE DELTA'

•

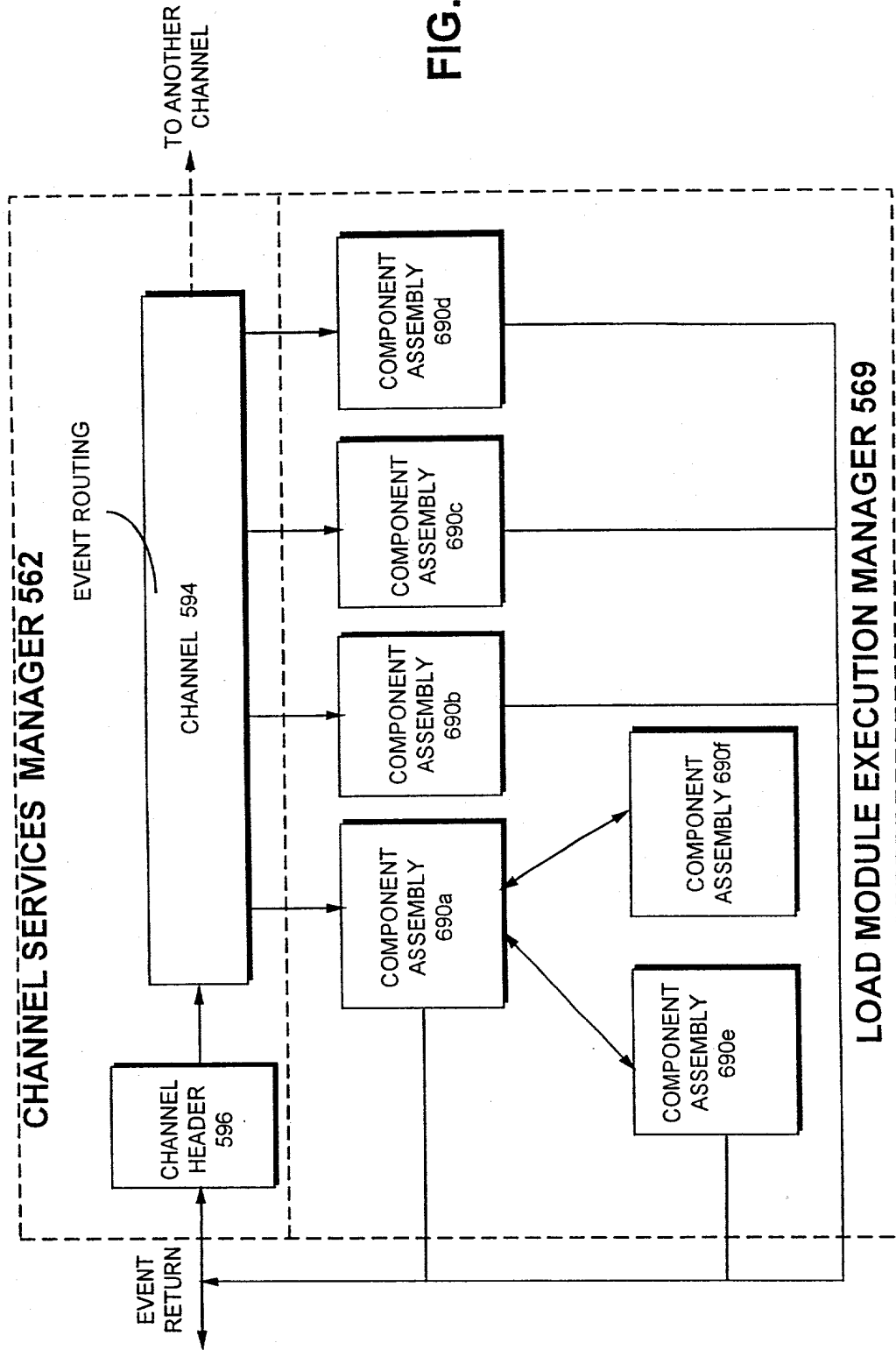


FIG. 15

**FIG. 15A**

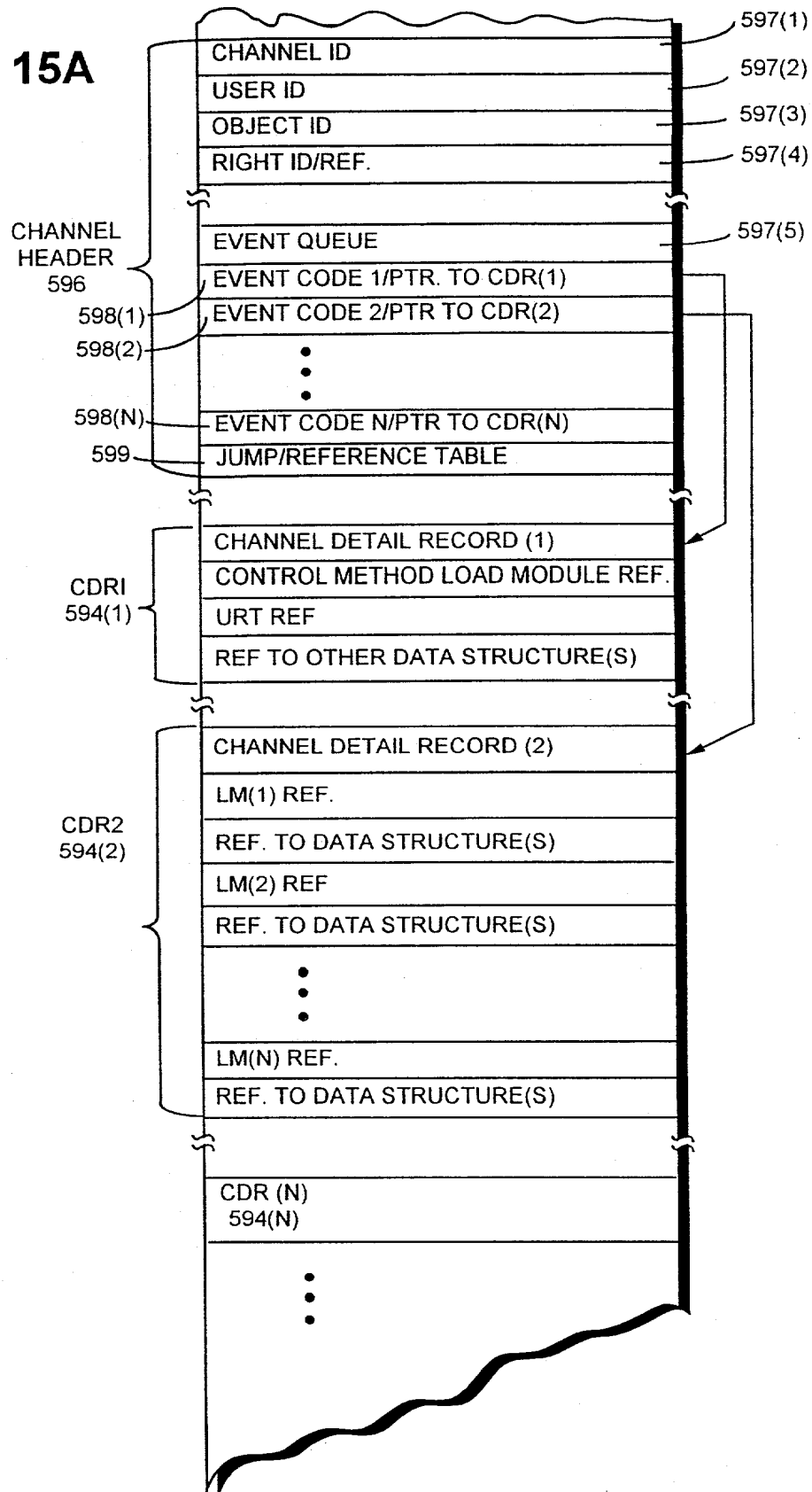


FIG. 15B

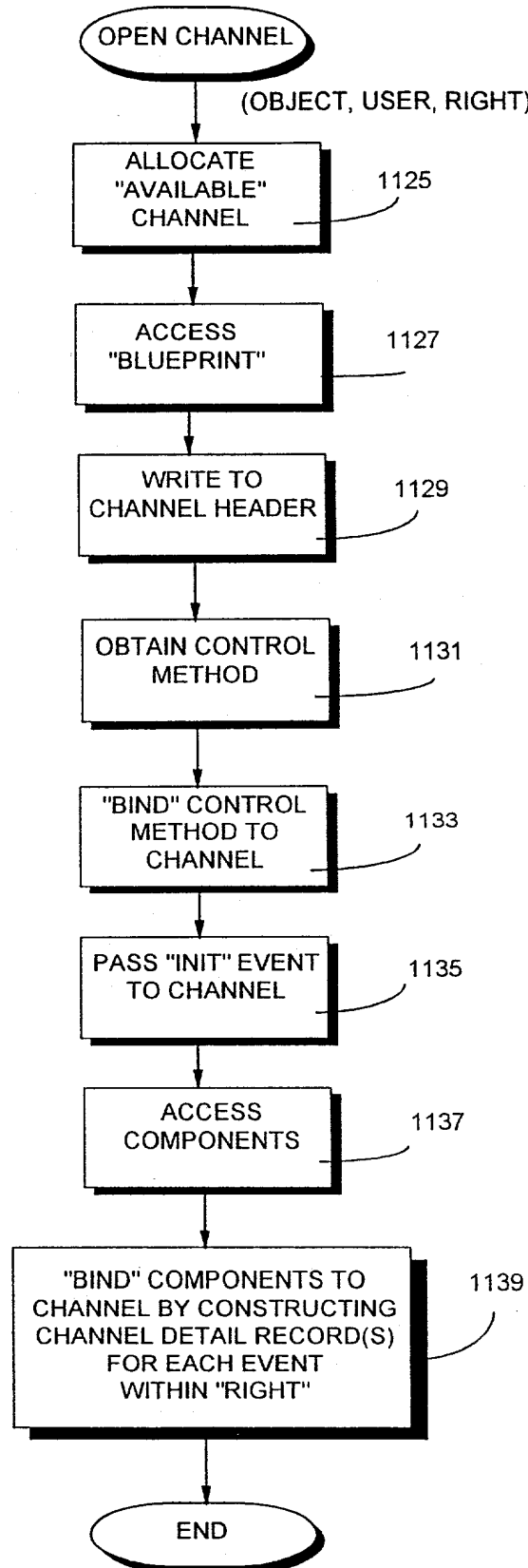
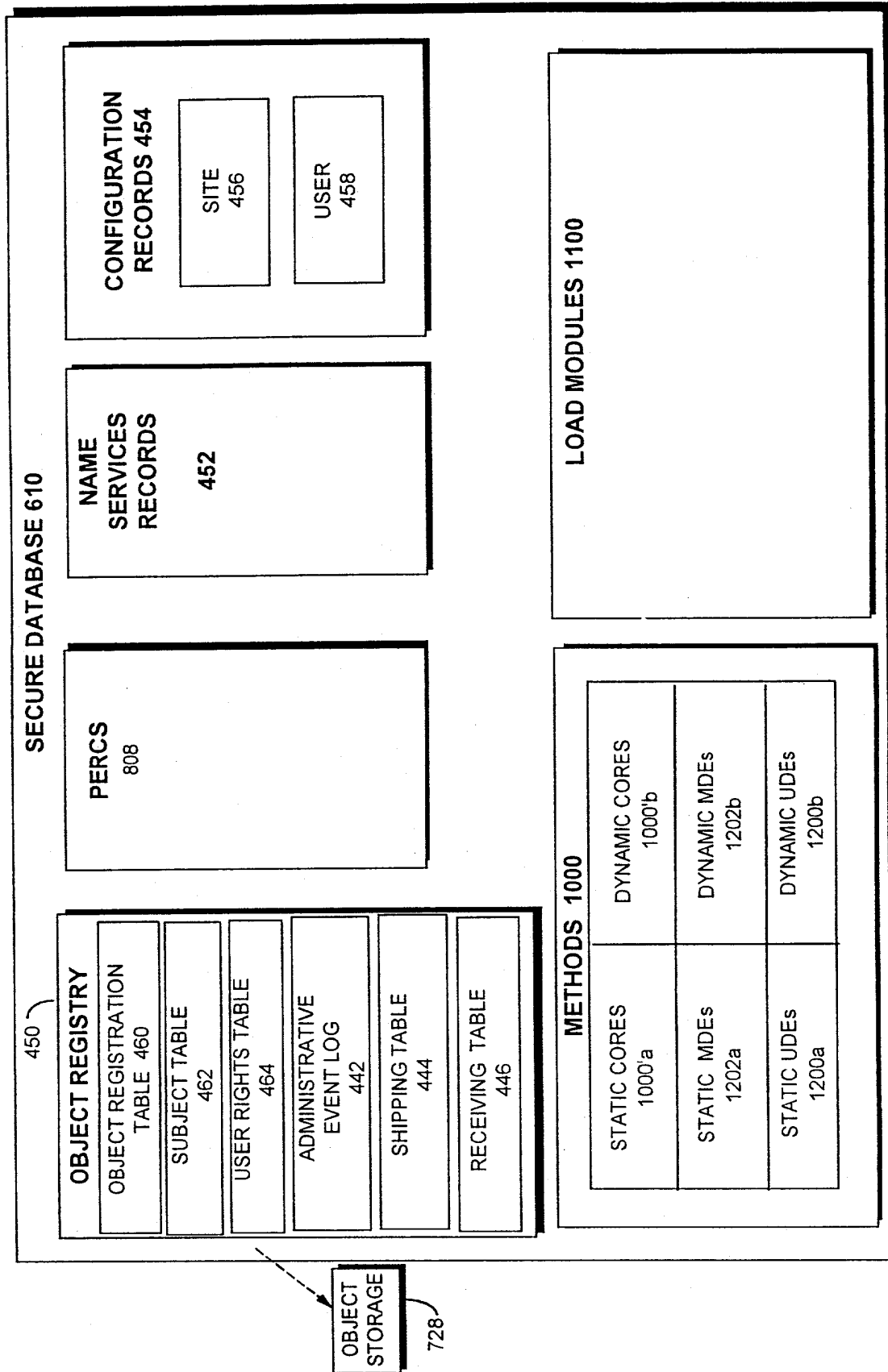


FIG. 16



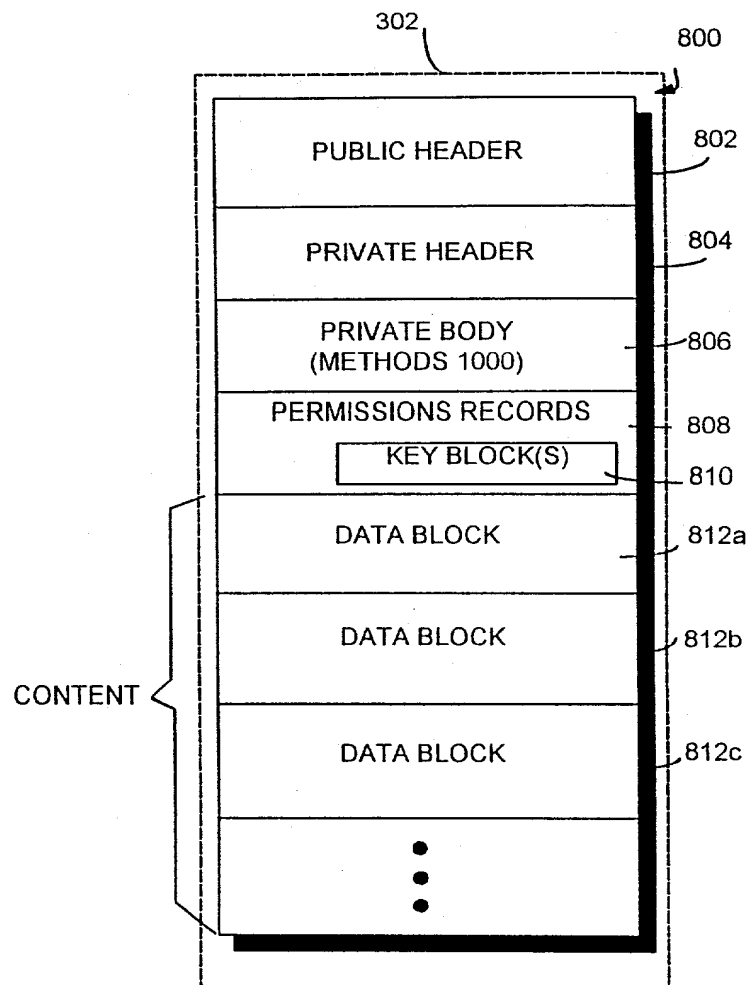
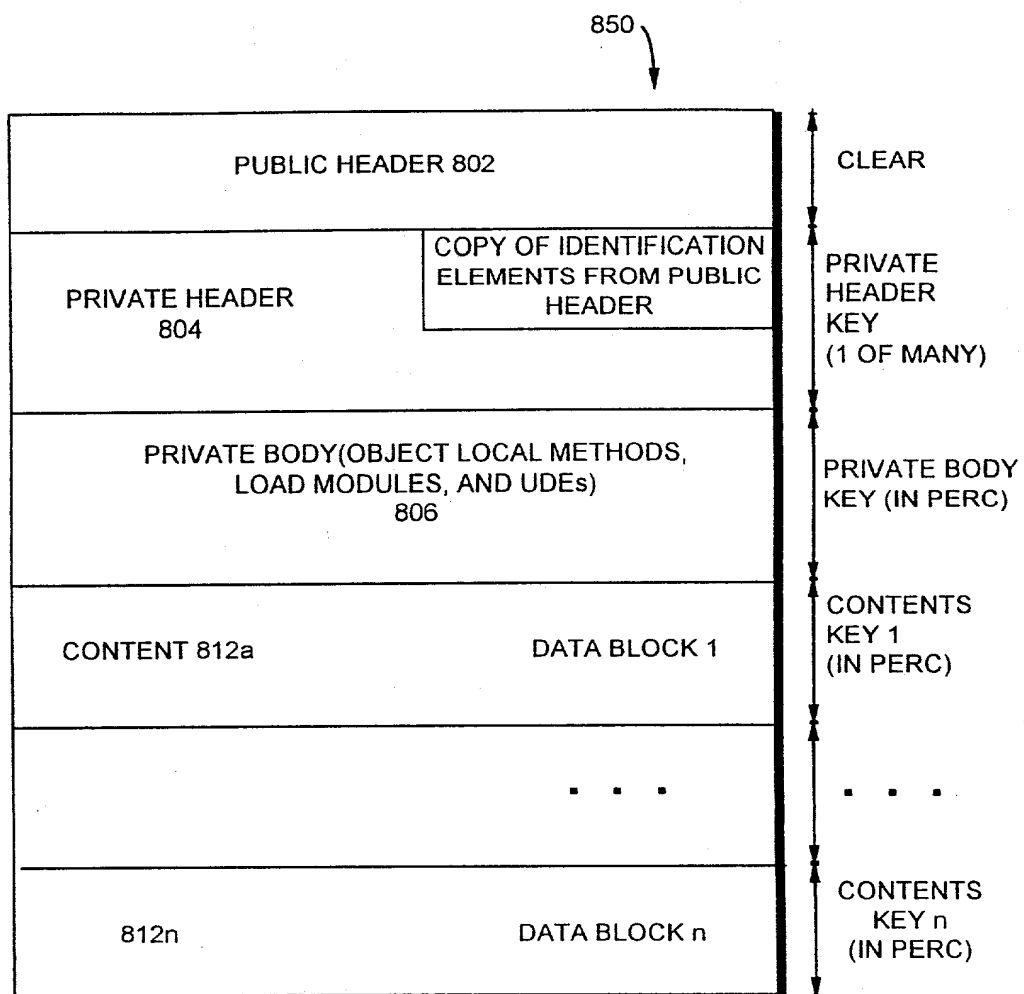


FIG. 17



**FIG. 18**



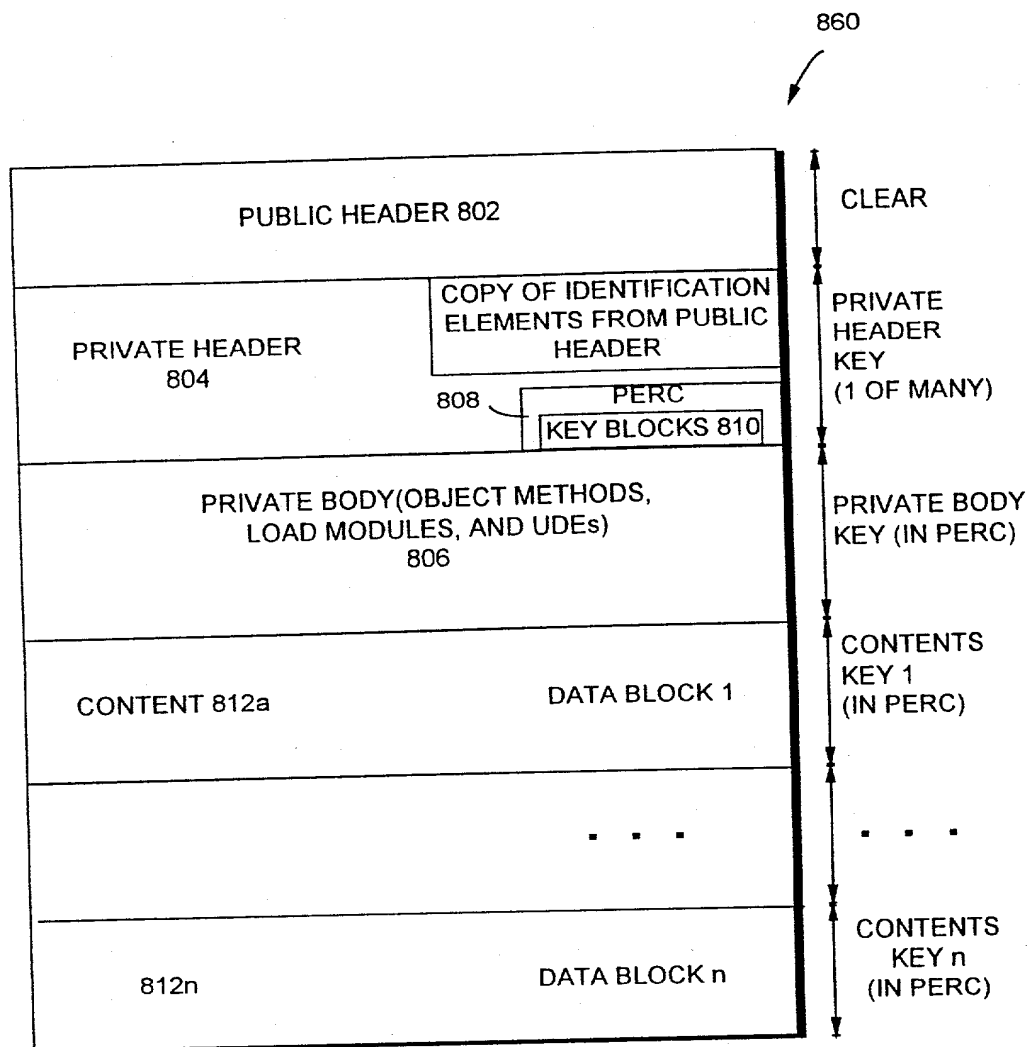


FIG. 19

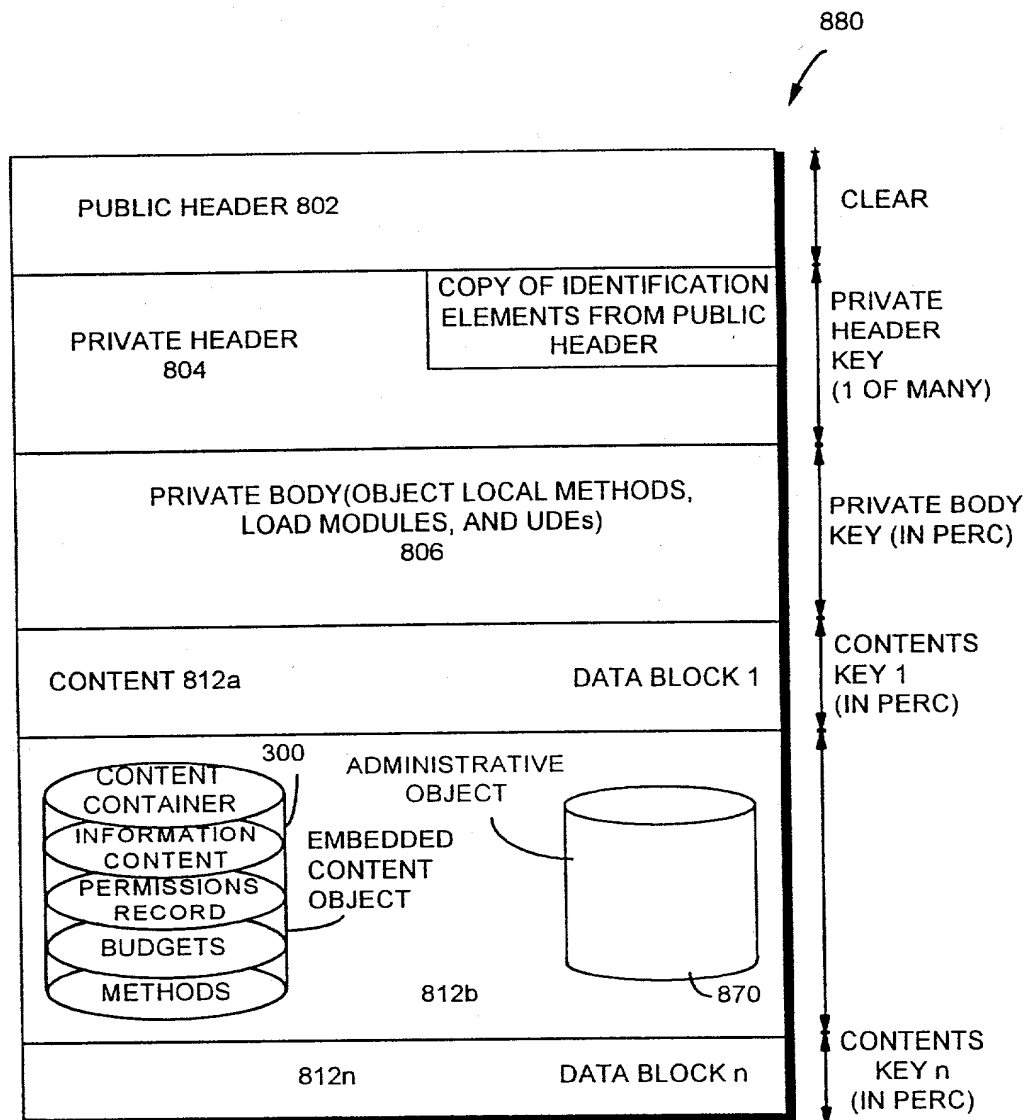
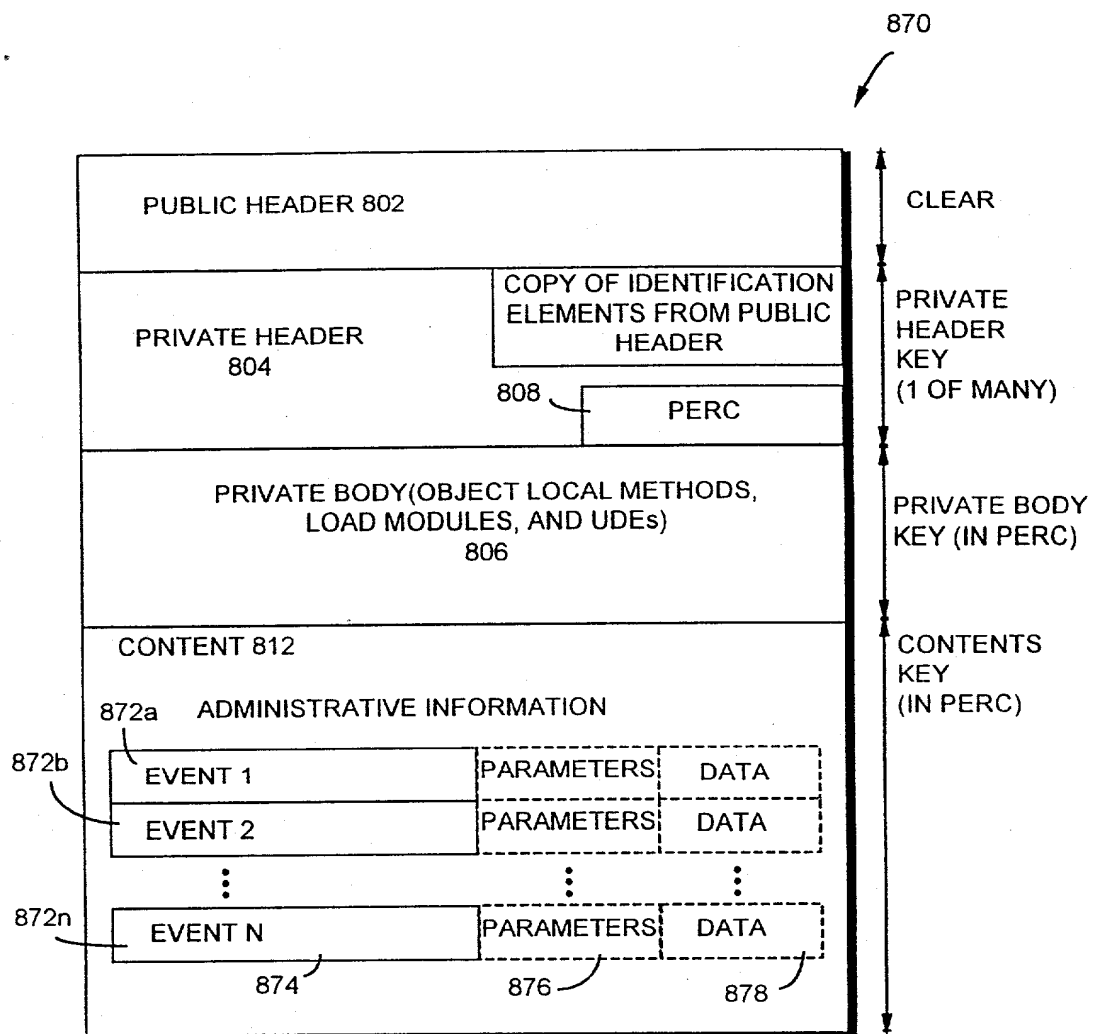


FIG. 20



**FIG. 21**

# FIG. 22

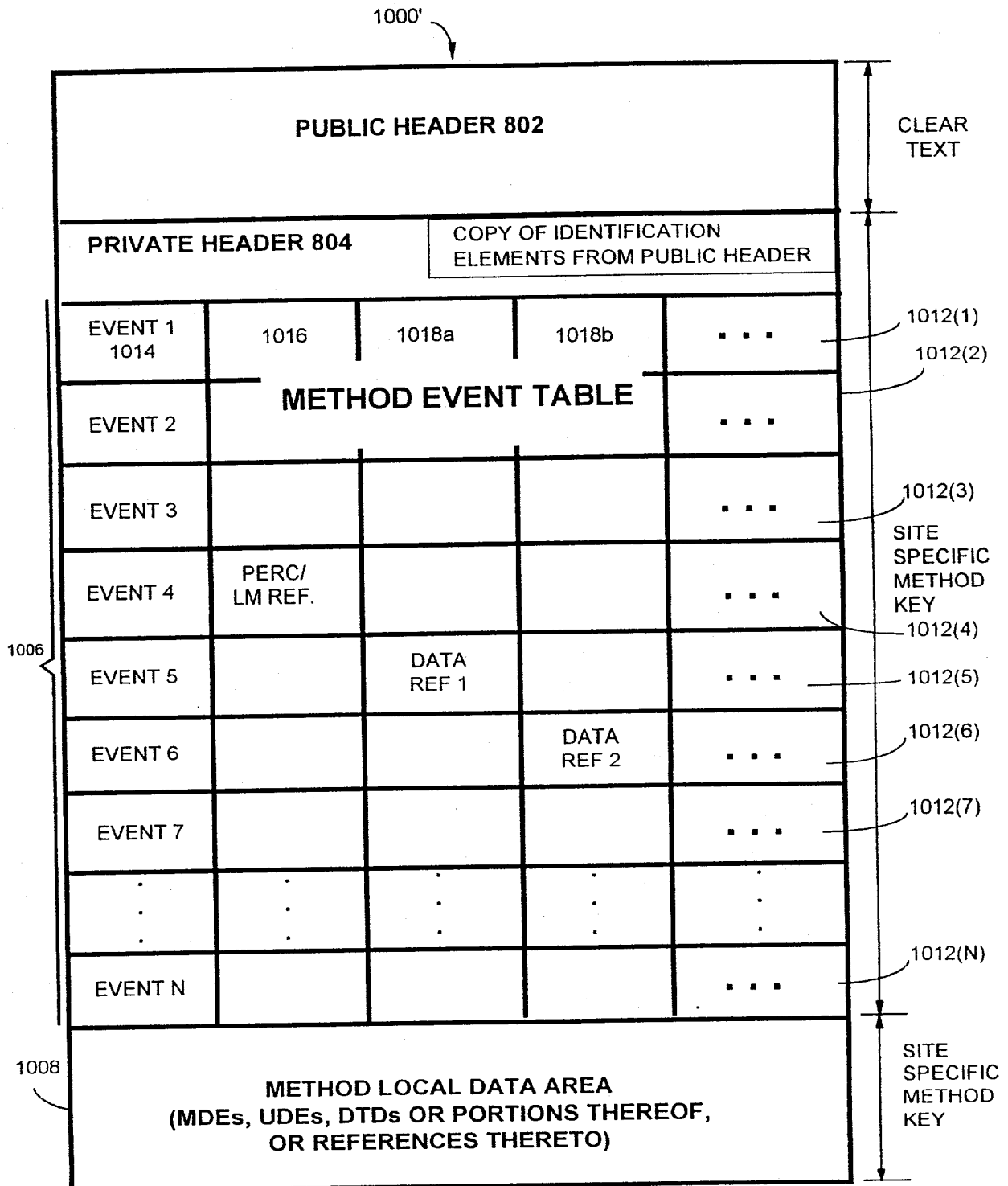


FIG. 23

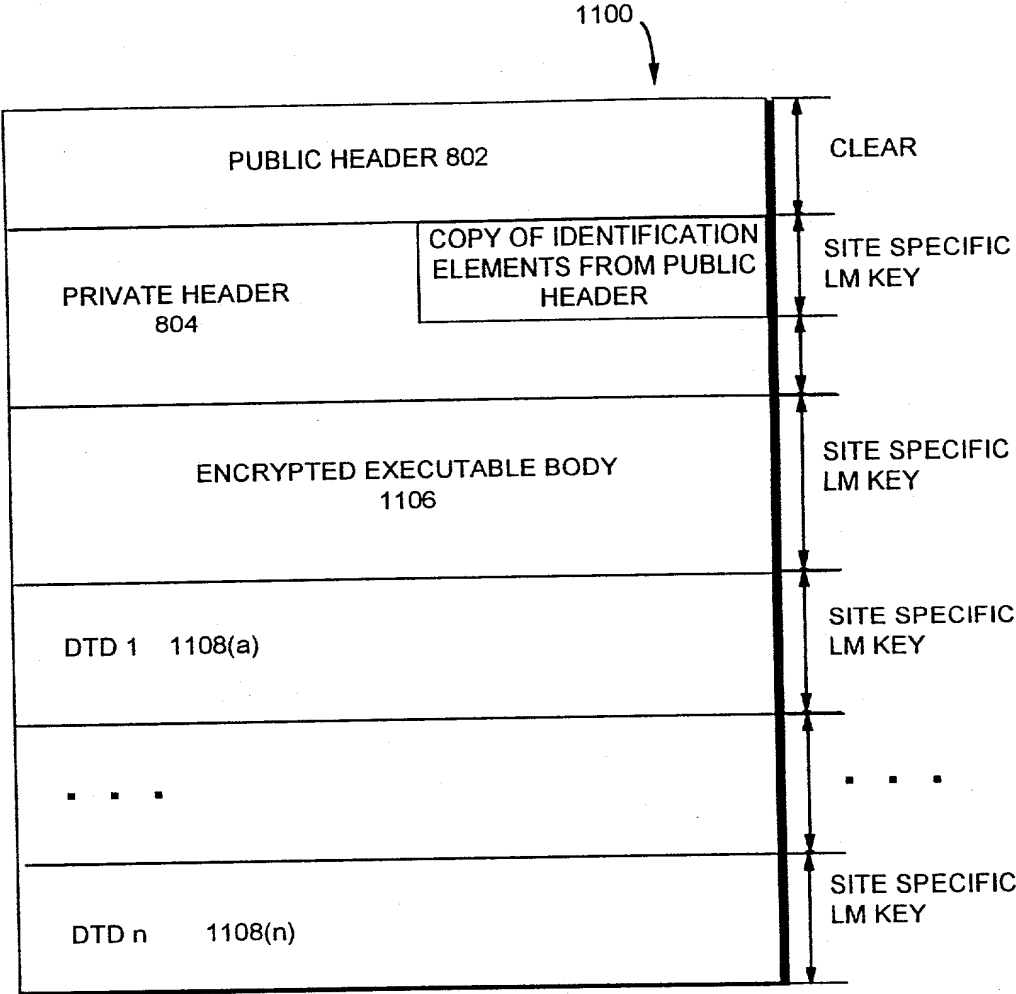
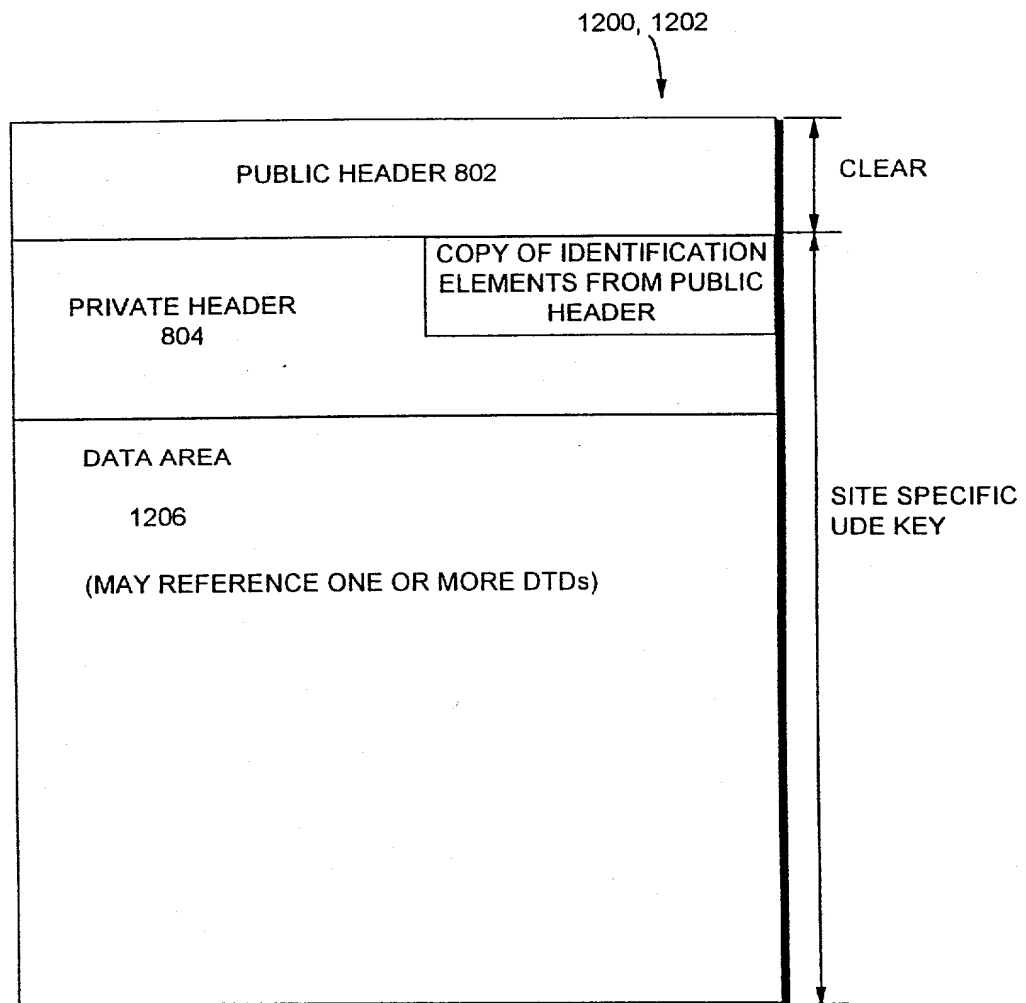
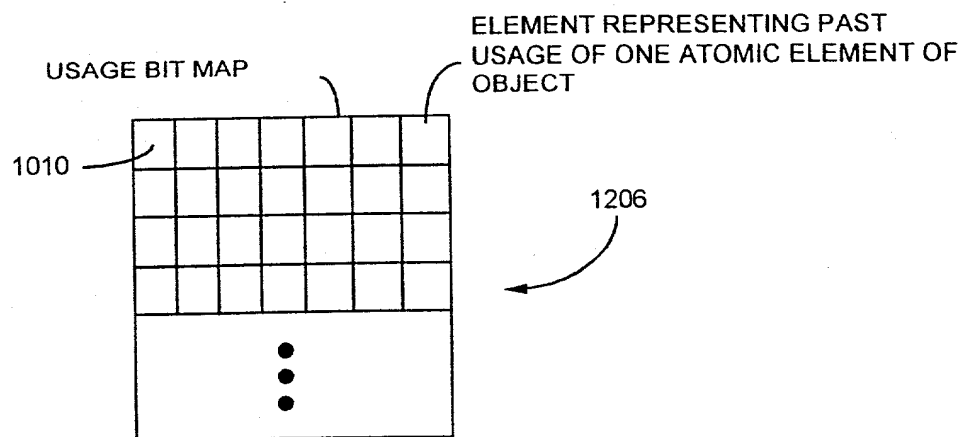


FIG. 24



# FIG. 25A



# FIG. 25B

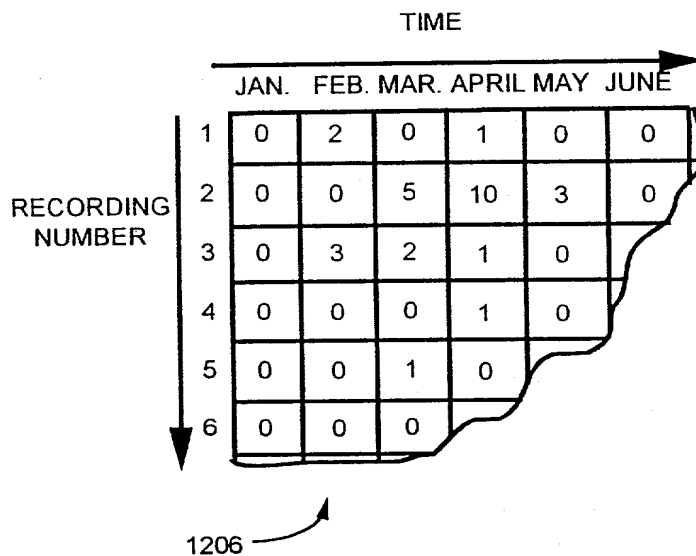
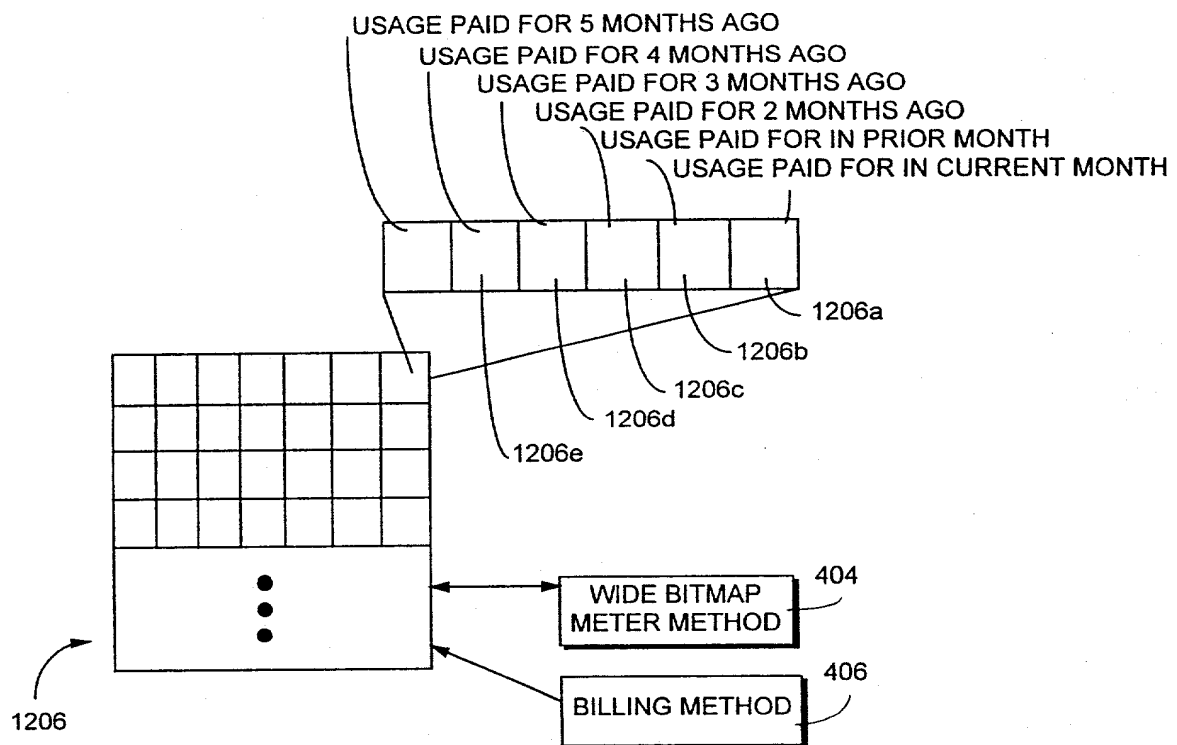
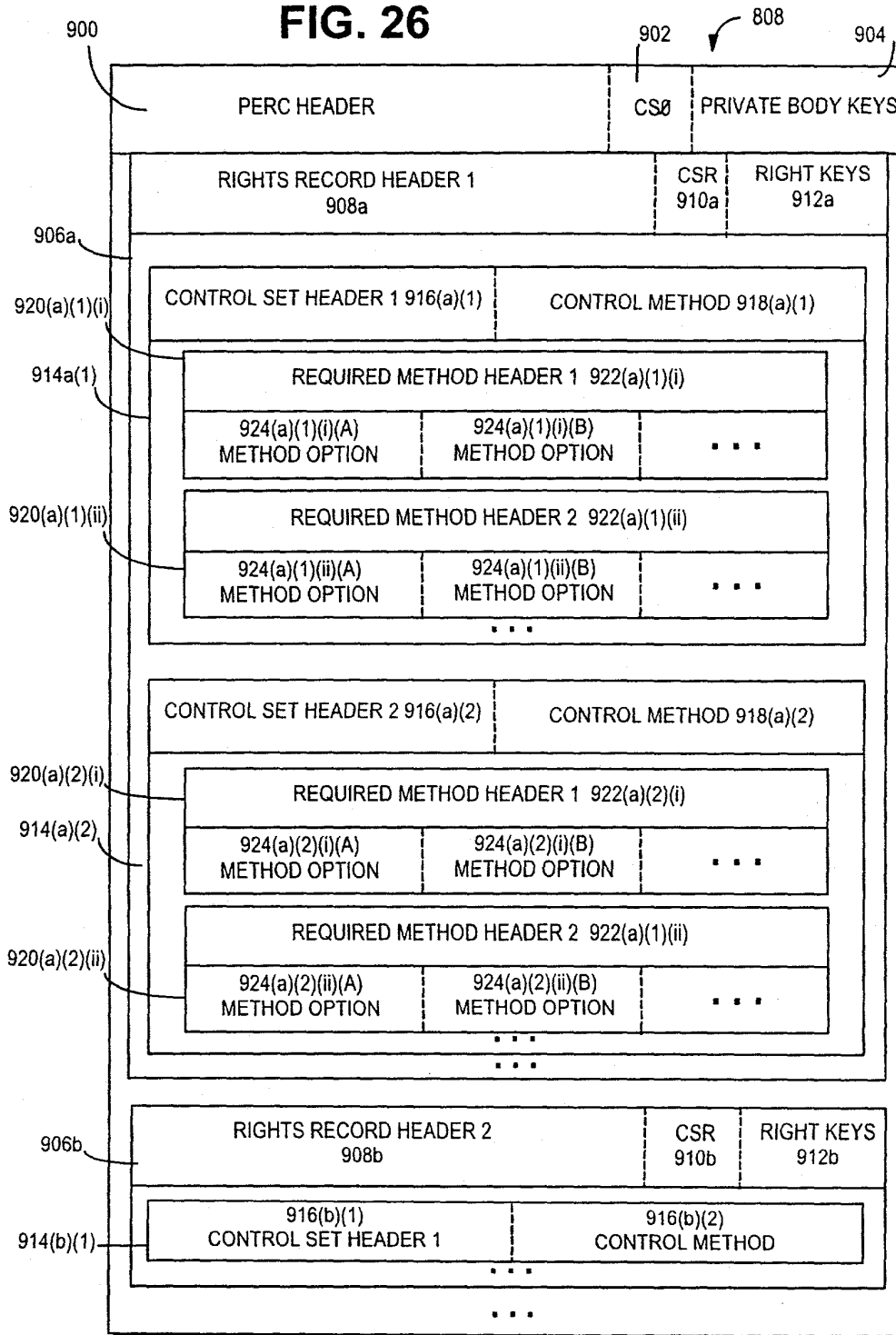


FIG. 25C





# FIG. 26



# FIG. 26A

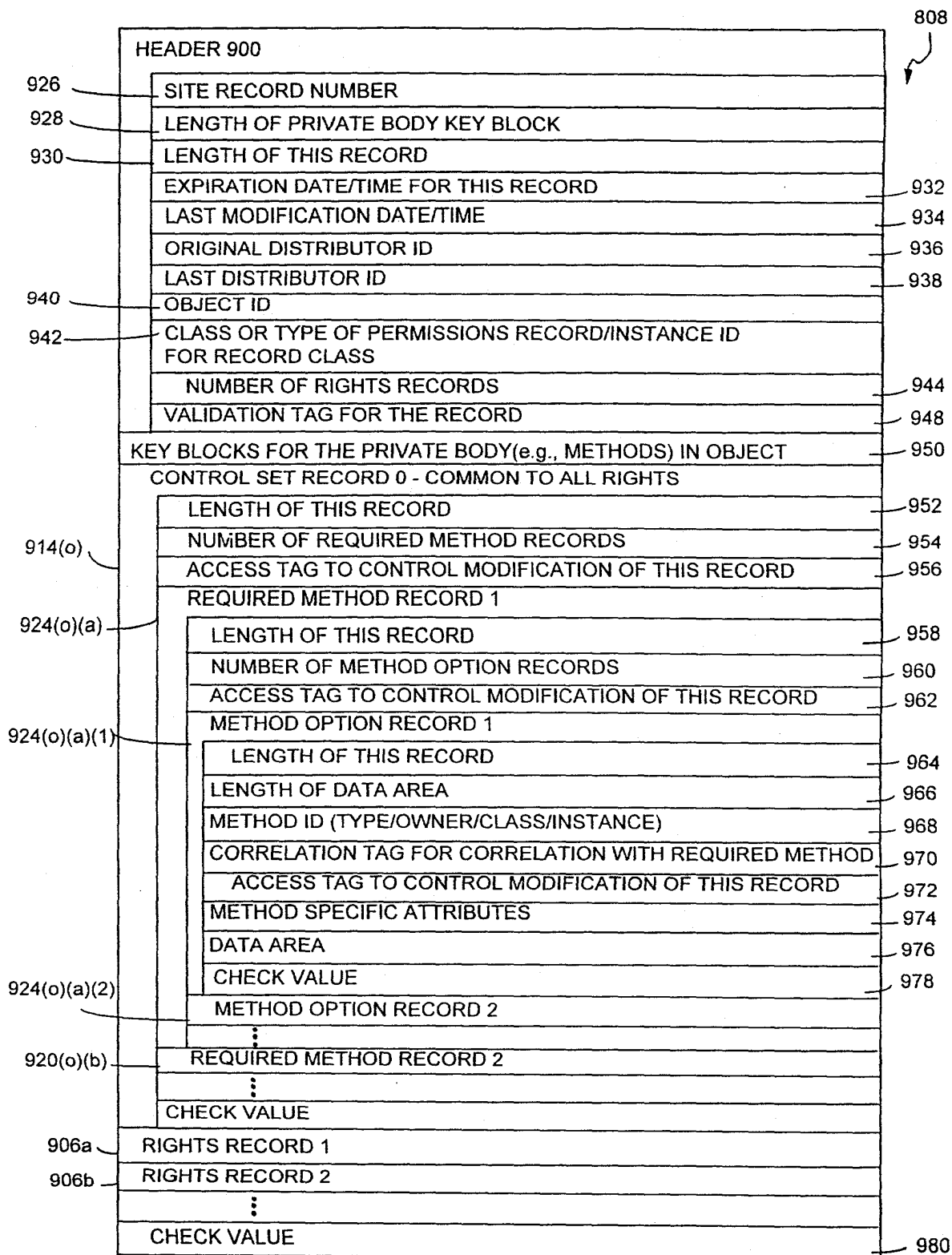
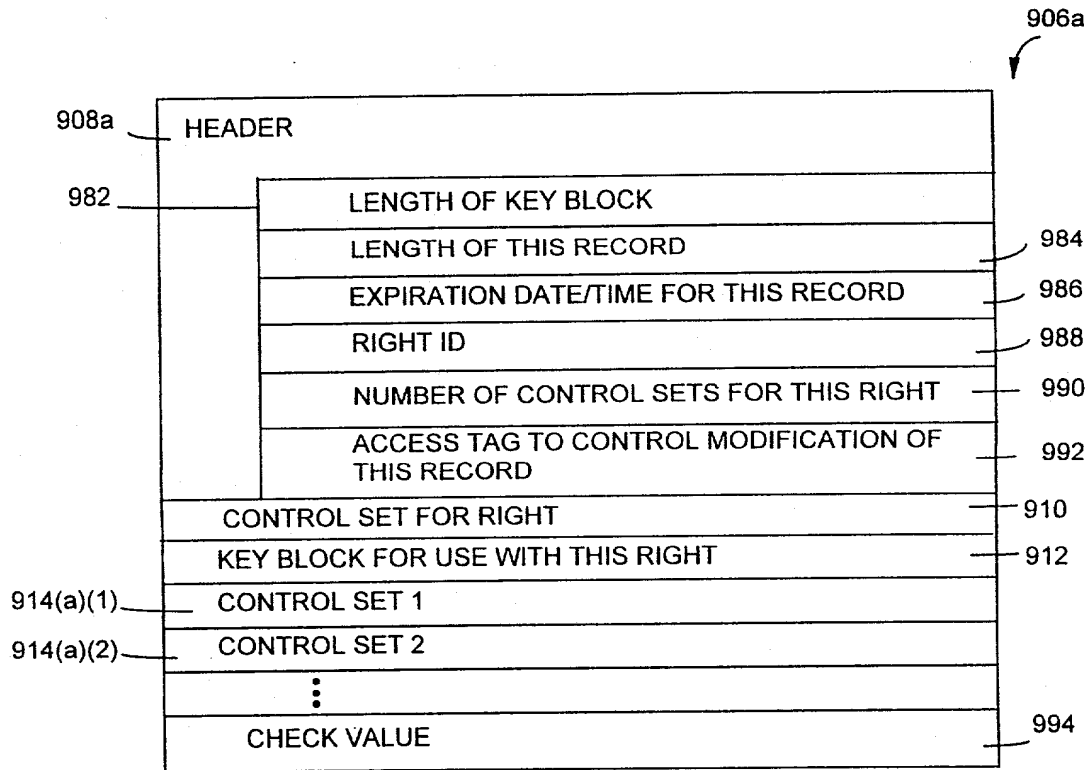
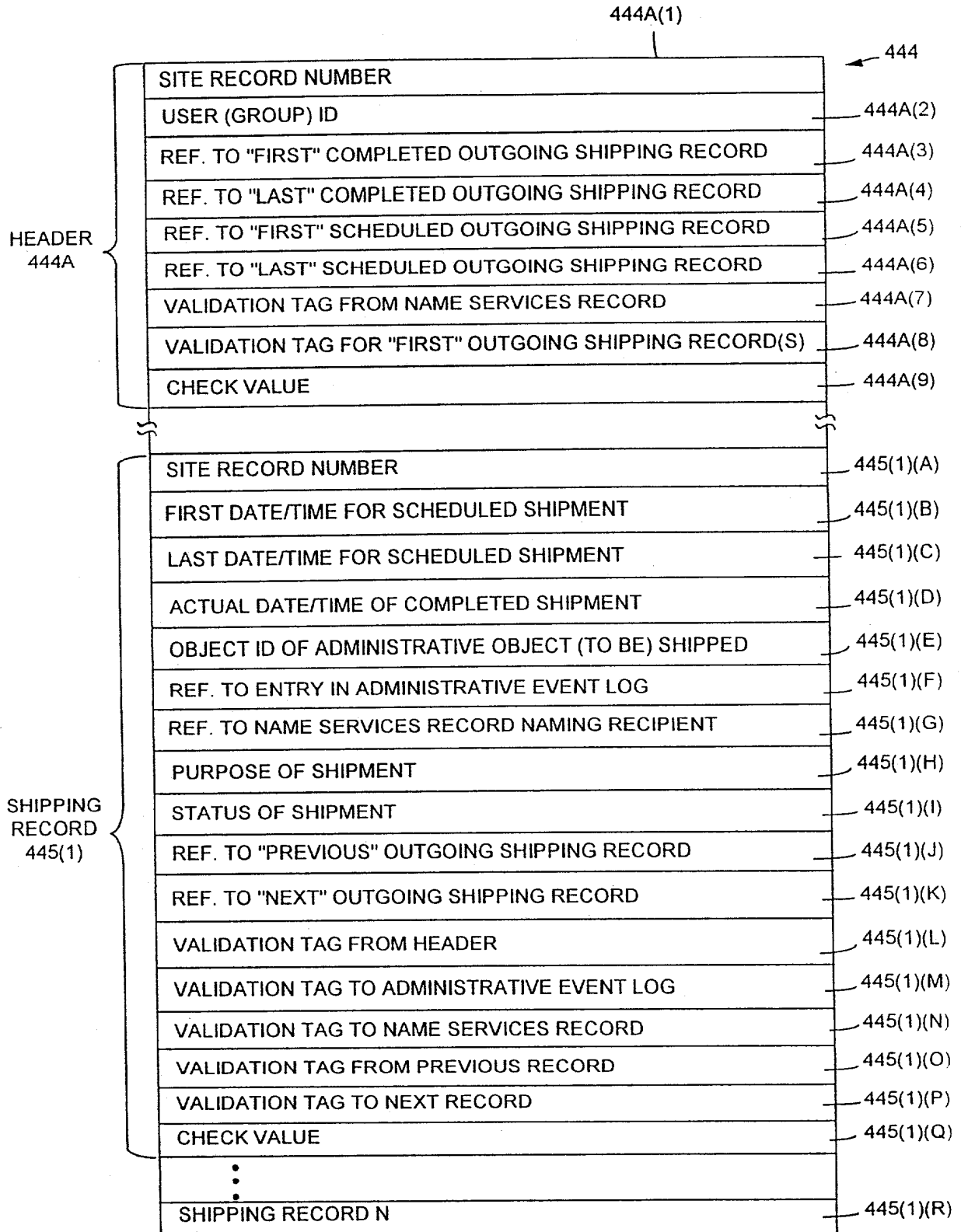


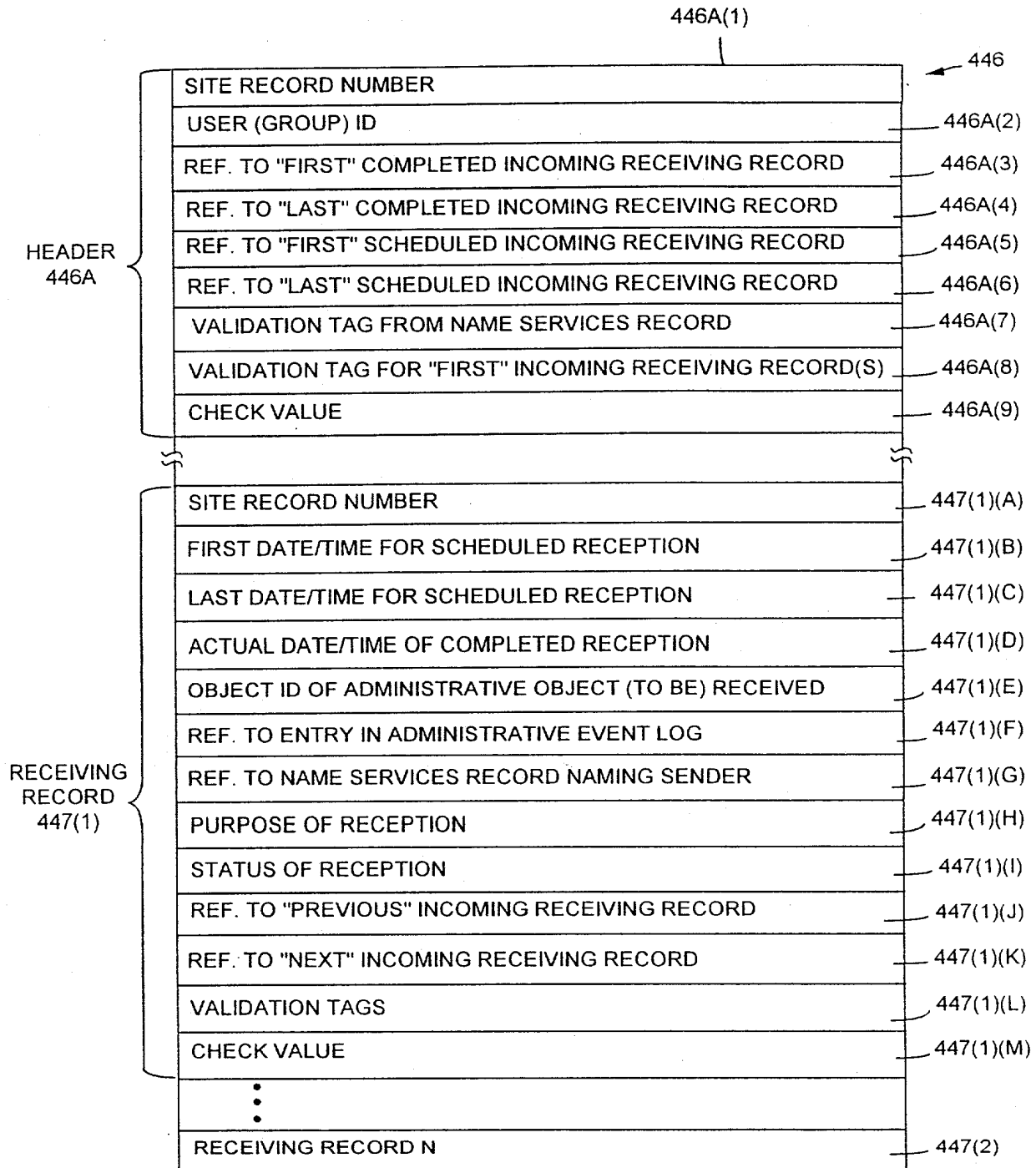
FIG. 26B



# FIG. 27



# FIG. 28



# FIG. 29

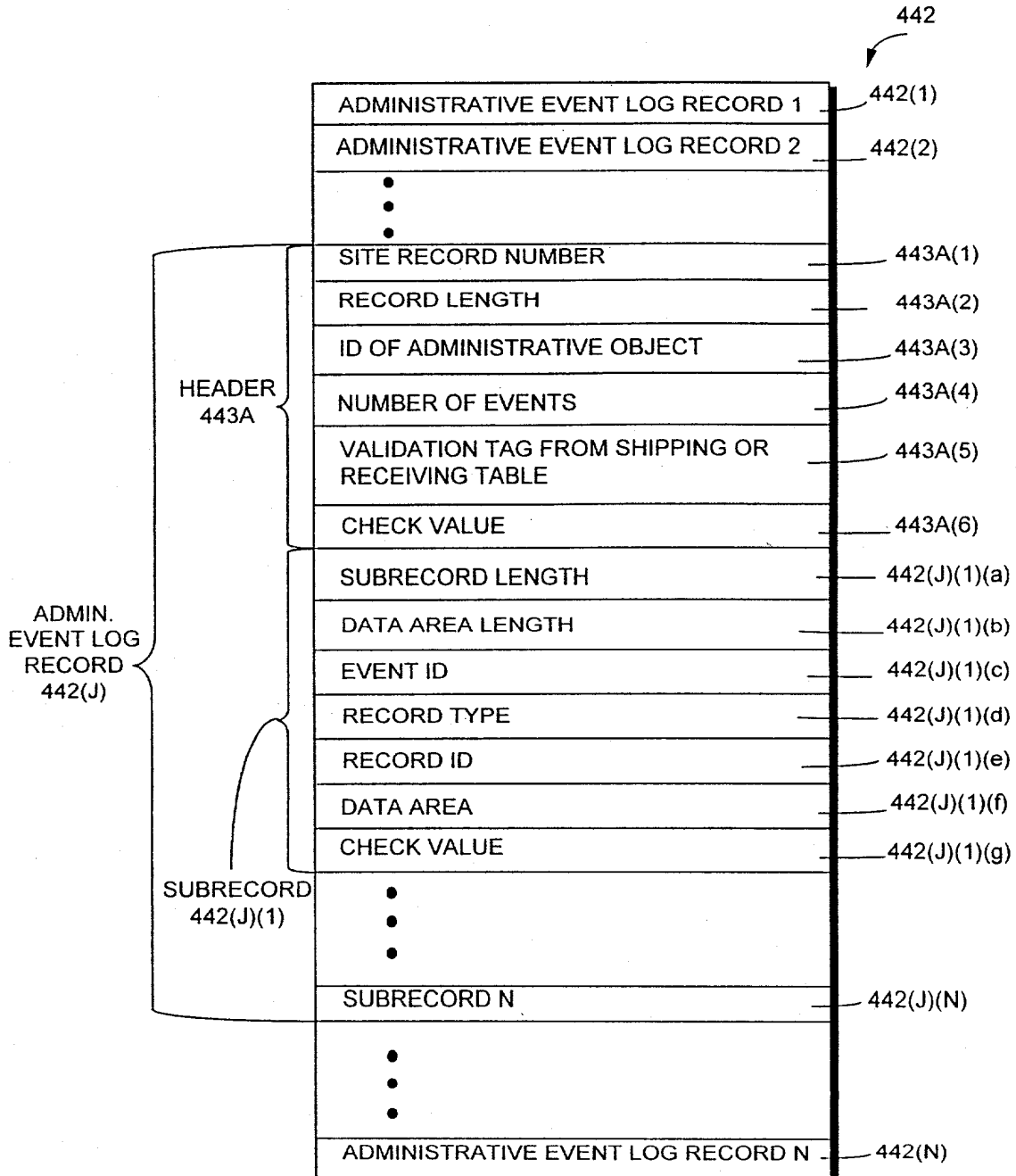
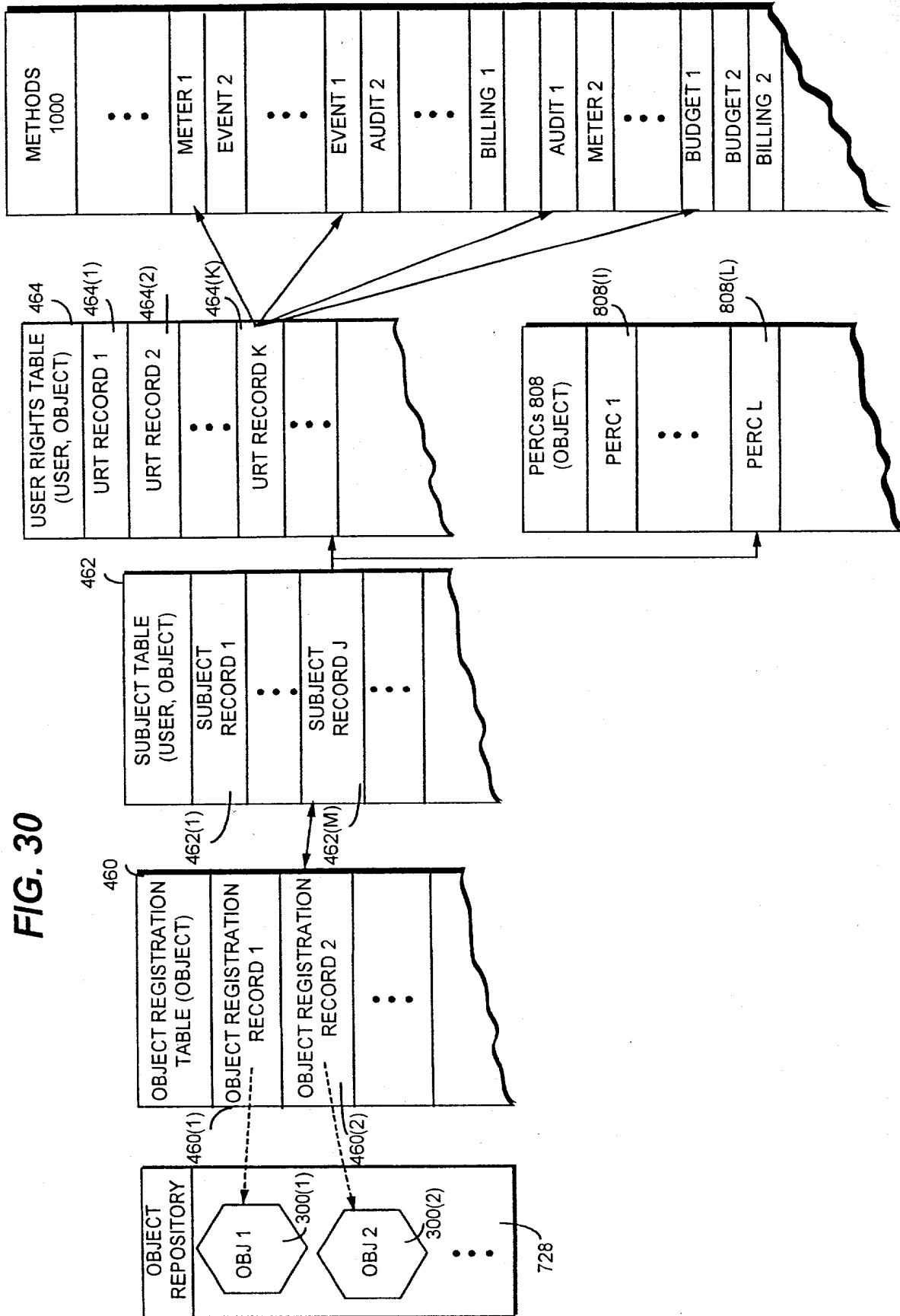
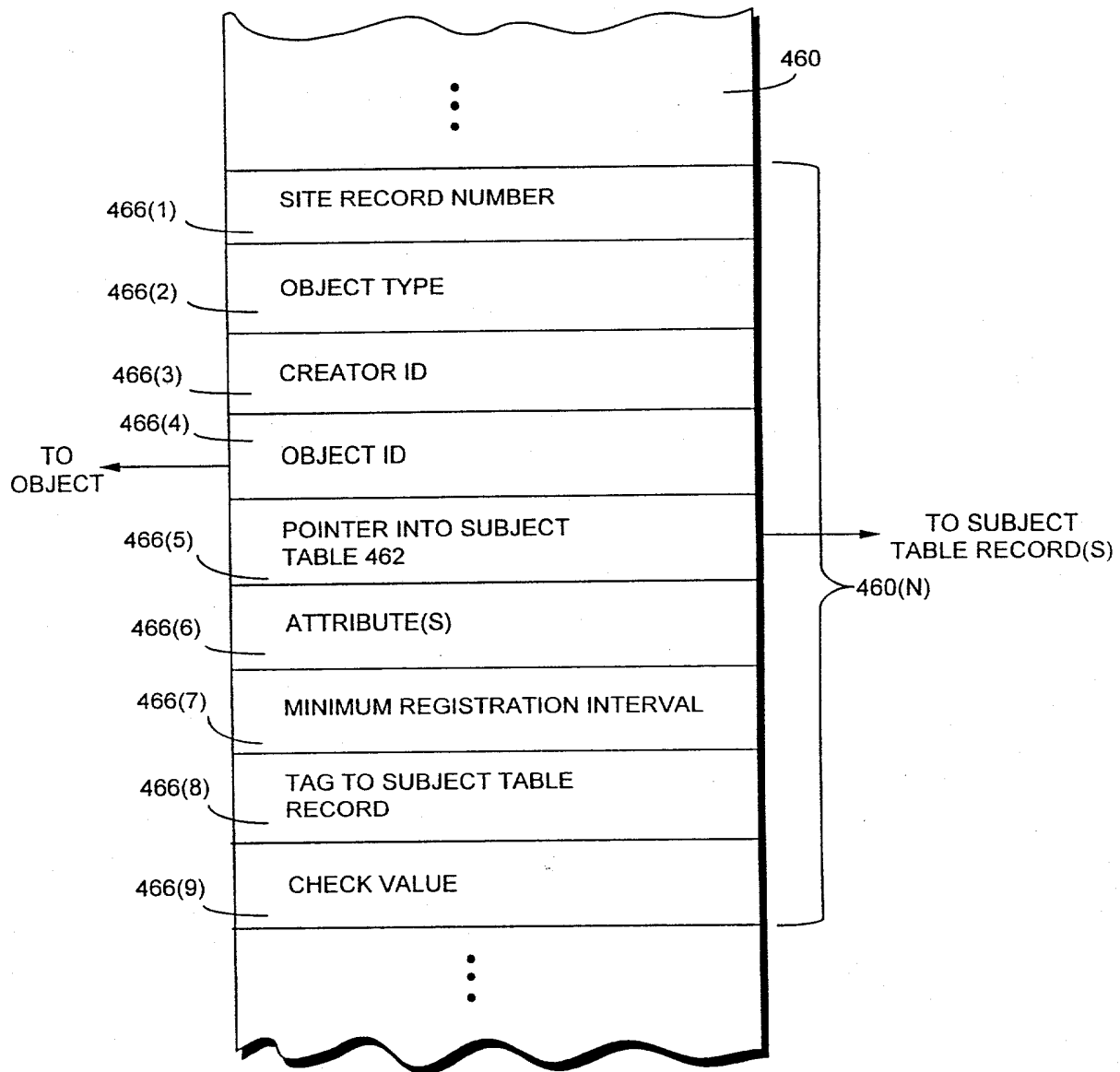


FIG. 30

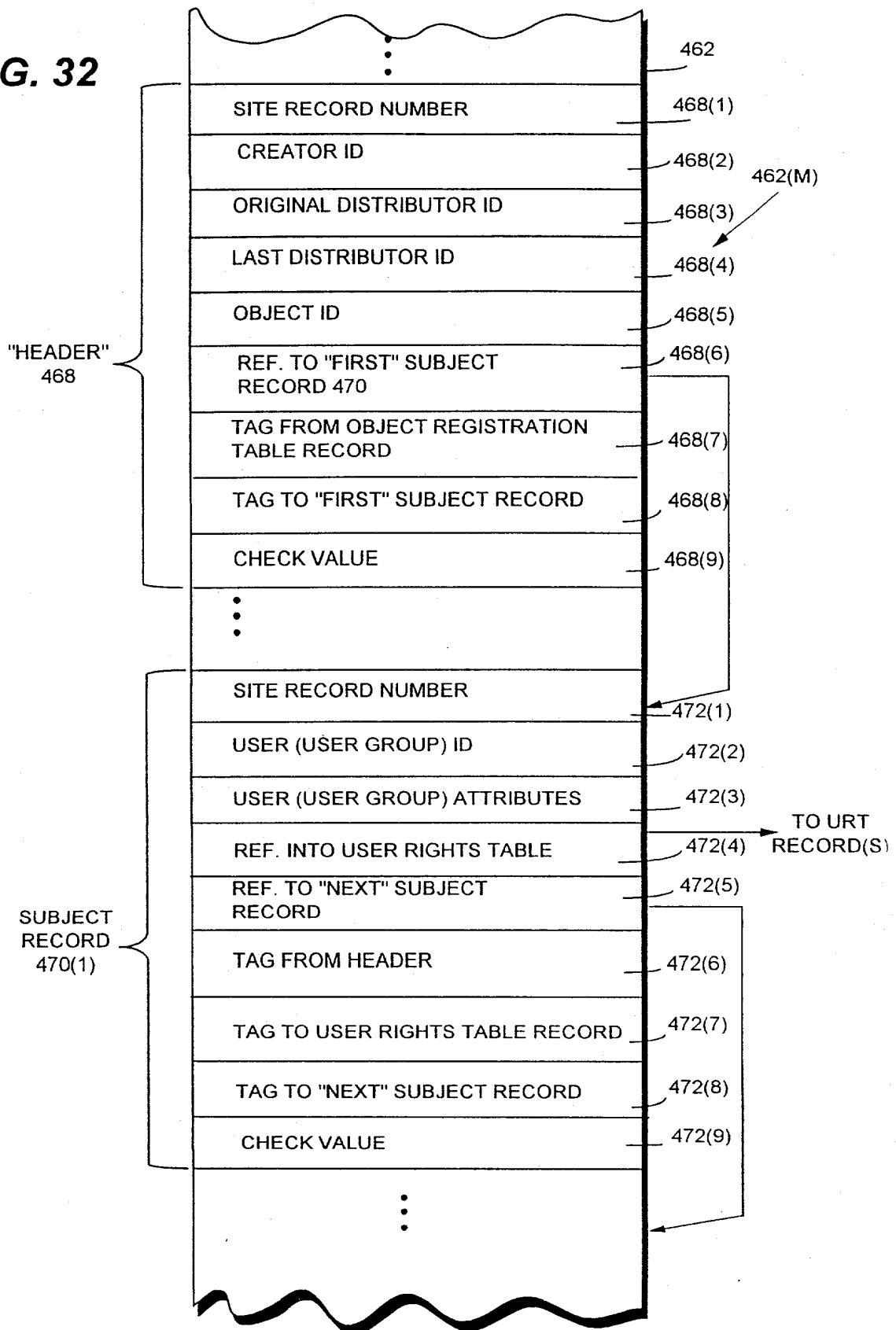




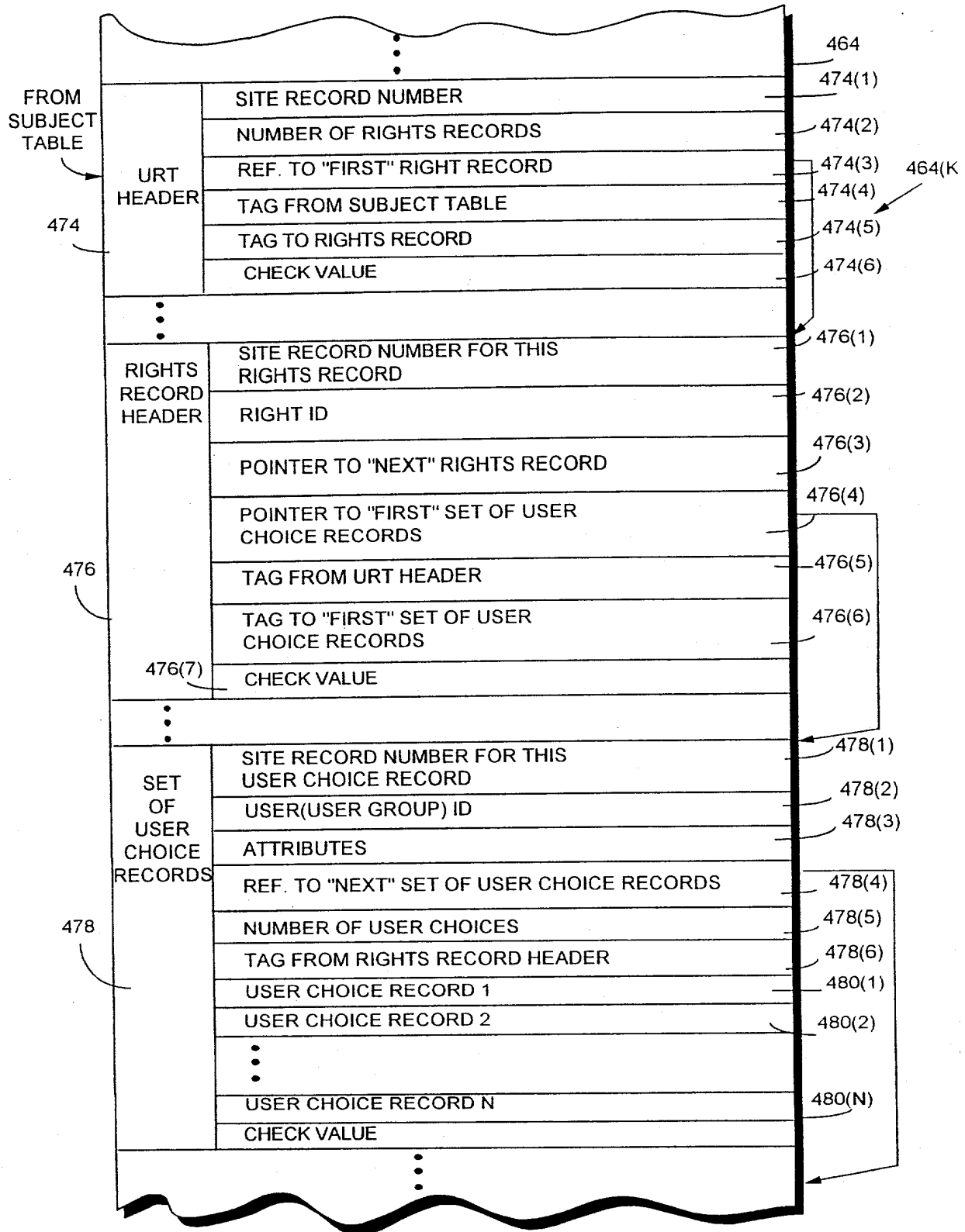
**FIG. 31**



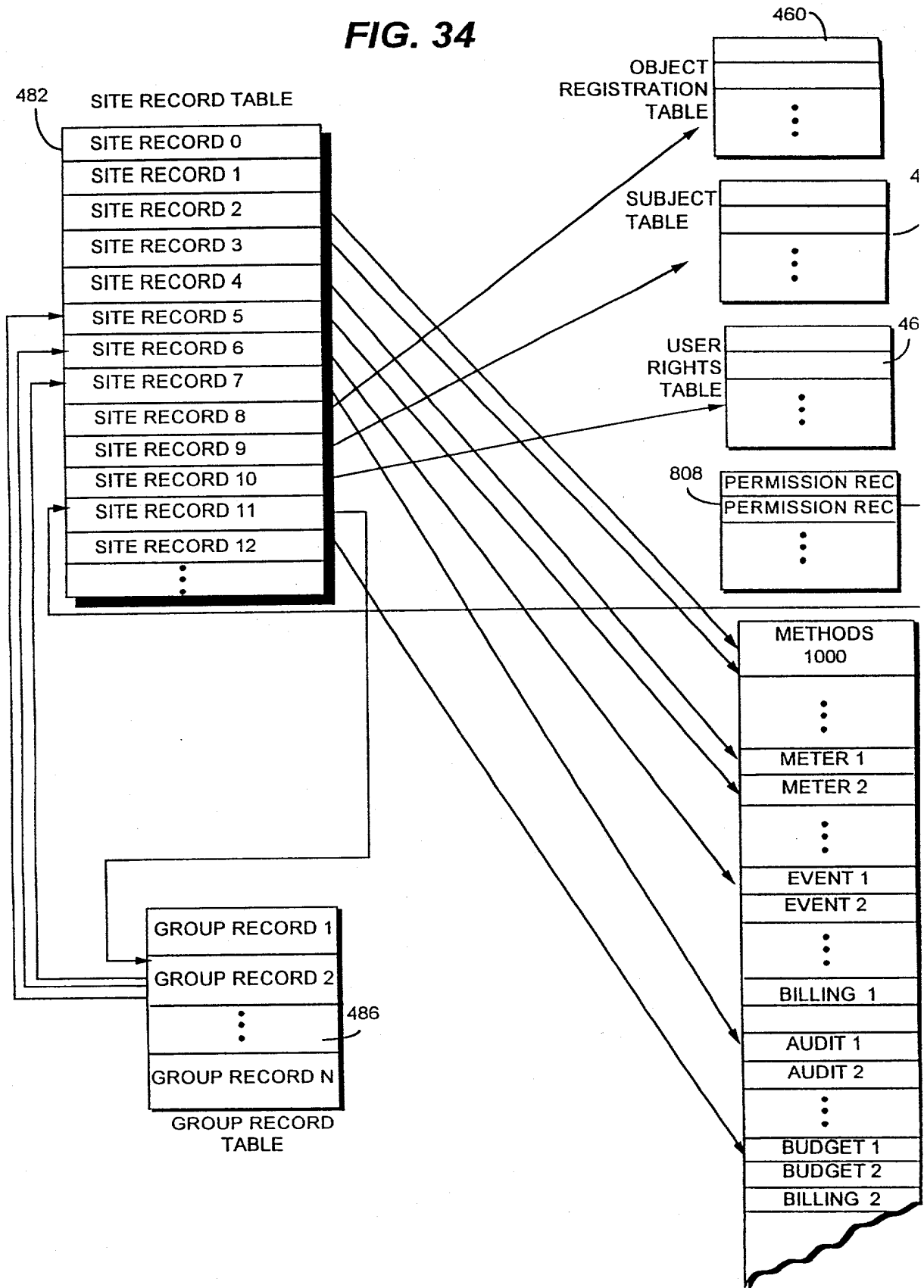
**FIG. 32**



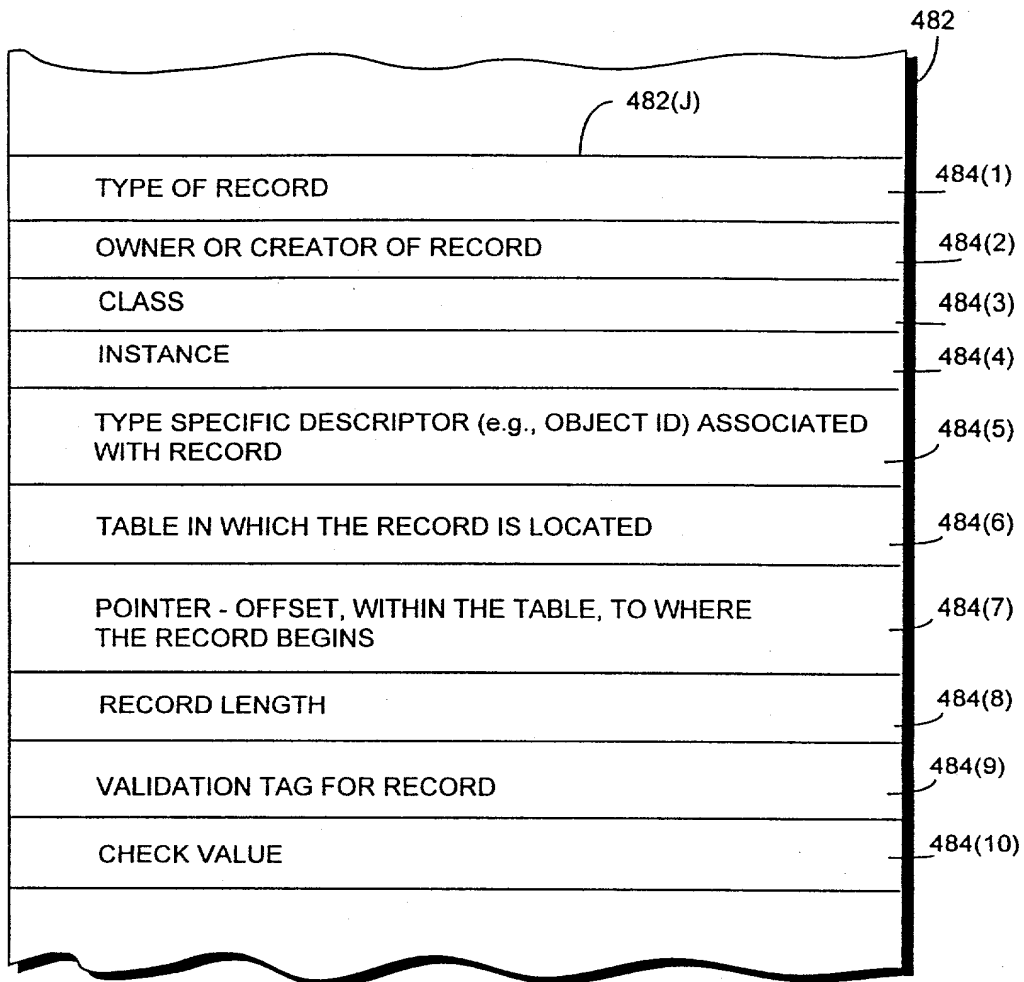
**FIG. 33**



**FIG. 34**



**FIG. 34A**



**FIG. 34B**

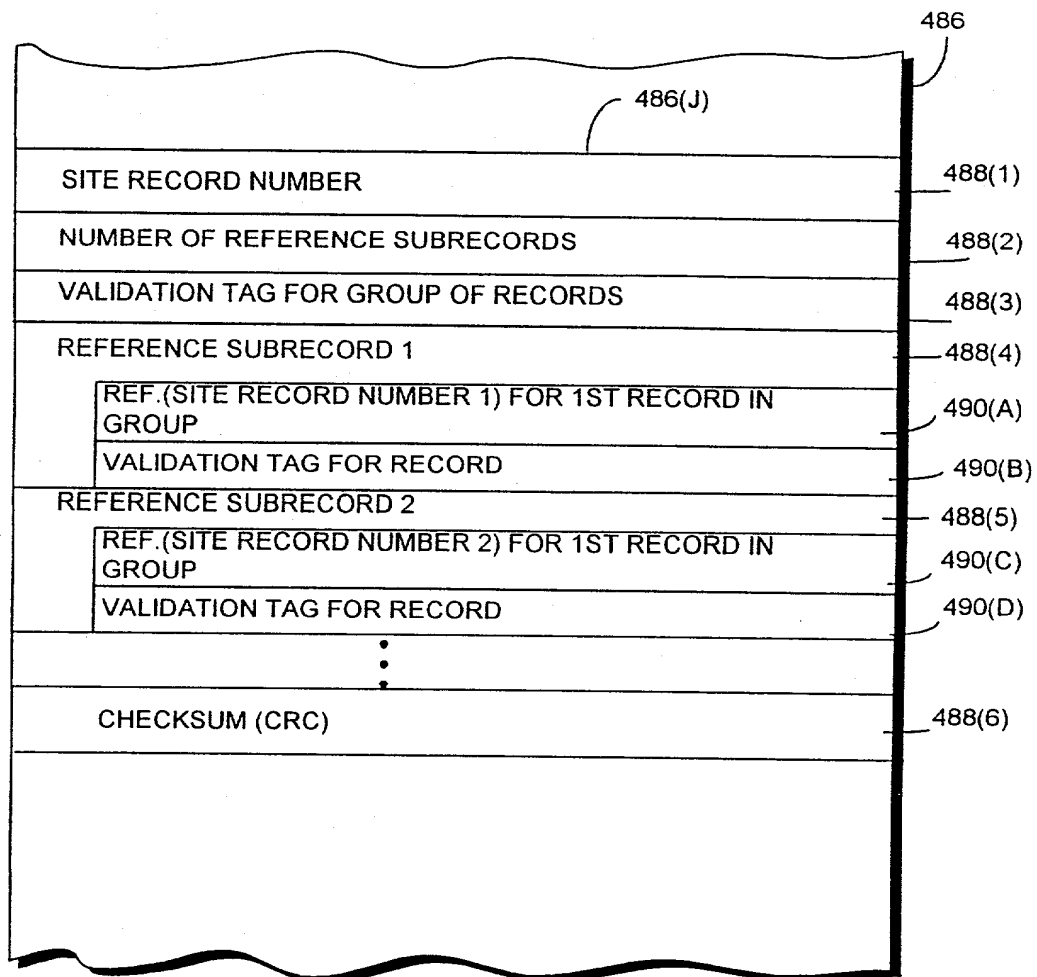


FIG. 35

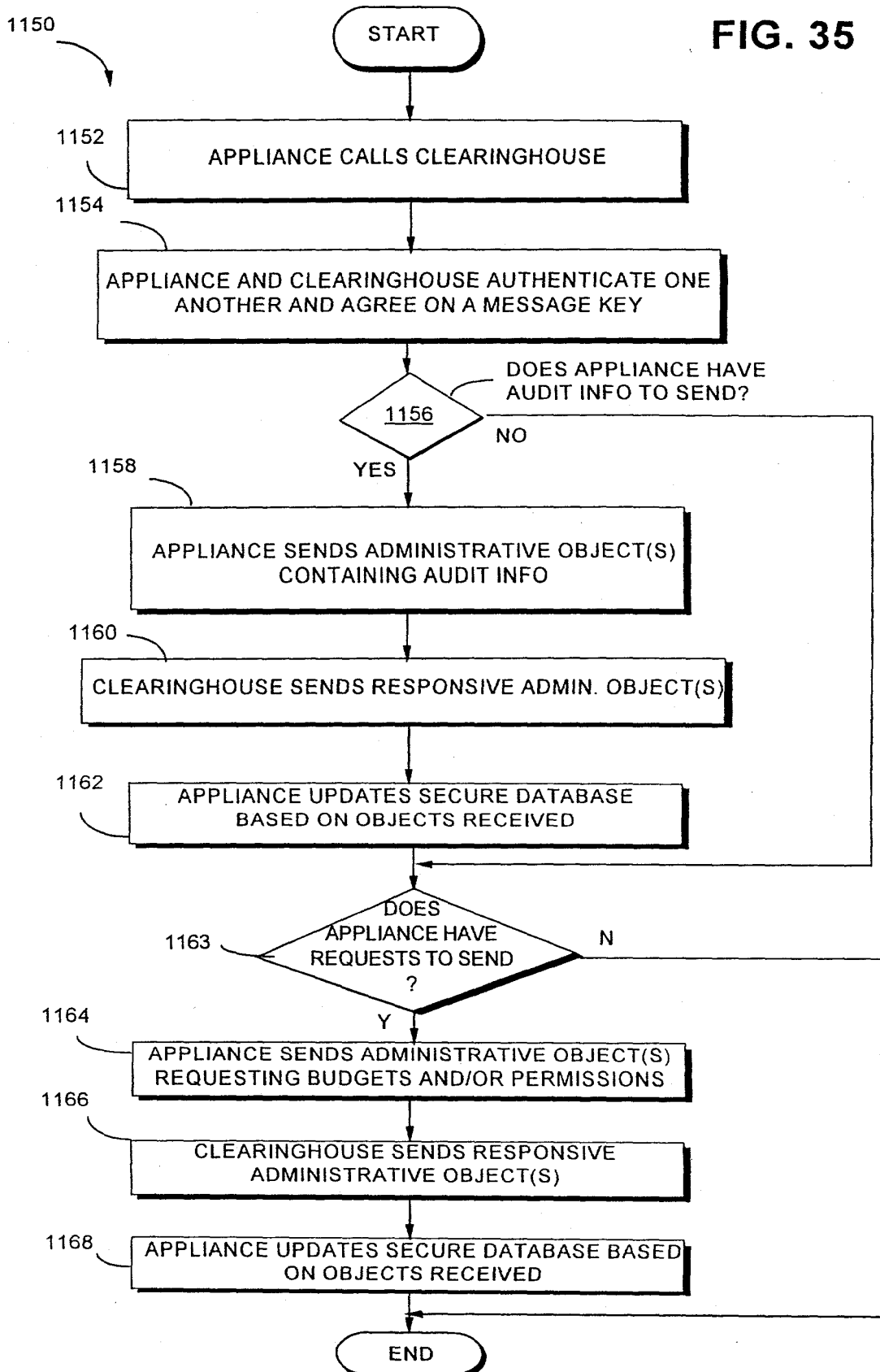


FIG. 36 is a block diagram of a system for inserting items into a secure database. The system includes an Authorization Service (1074), a Check User Authorization to Insert Items into Database (1072), a Check Element Integrity by Check Value and Digital Signature Tests (1078), a Tag and Encrypted Wrapper (1082), an Encrypt (1080), a Decrypt (1076), and a Tag Store (1084). The process starts with providing an item to be inserted into a secure database. This item is then checked for user authorization to insert into the database. If authorized, the item is inserted into the secure database. The item is then checked for integrity by checking the value and digital signature. If the integrity check passes, the item is wrapped in a tag and encrypted wrapper. The wrapped item is then encrypted. The encrypted item is then inserted into the secure database. The system also includes a tag store for storing tags. The process ends with the item being inserted into the secure database.

FIG. 36

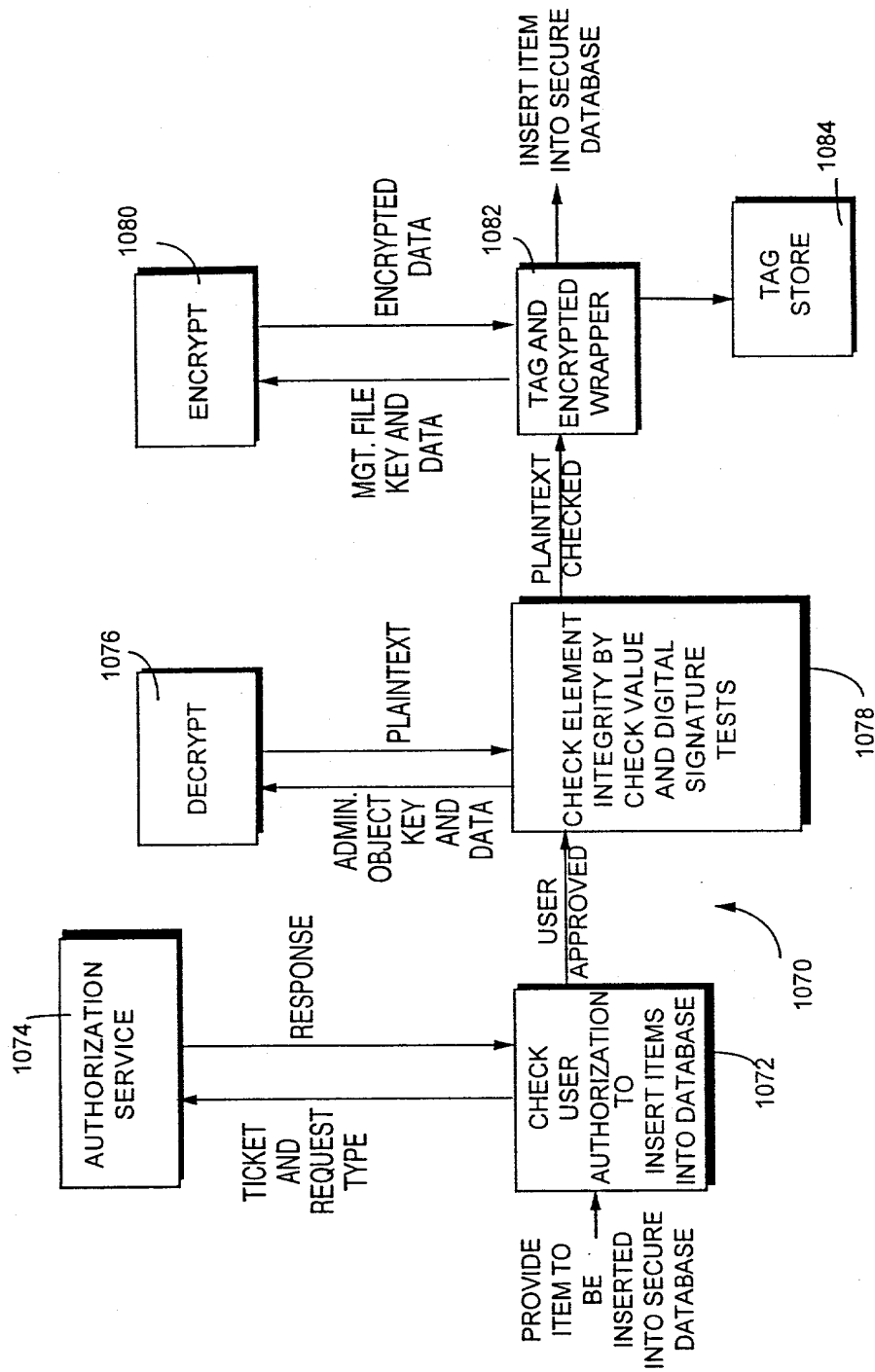


FIG. 37

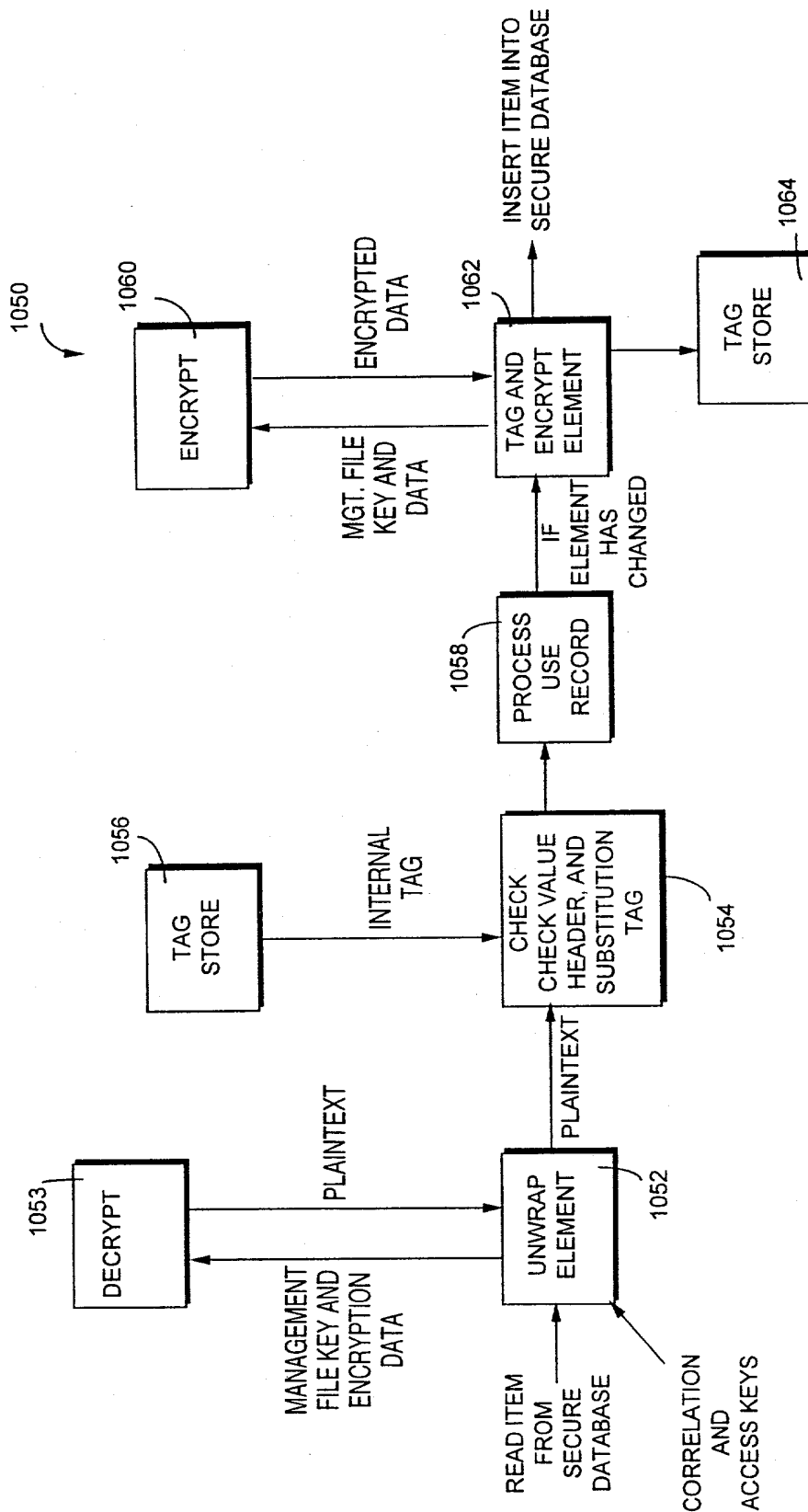




FIG. 38

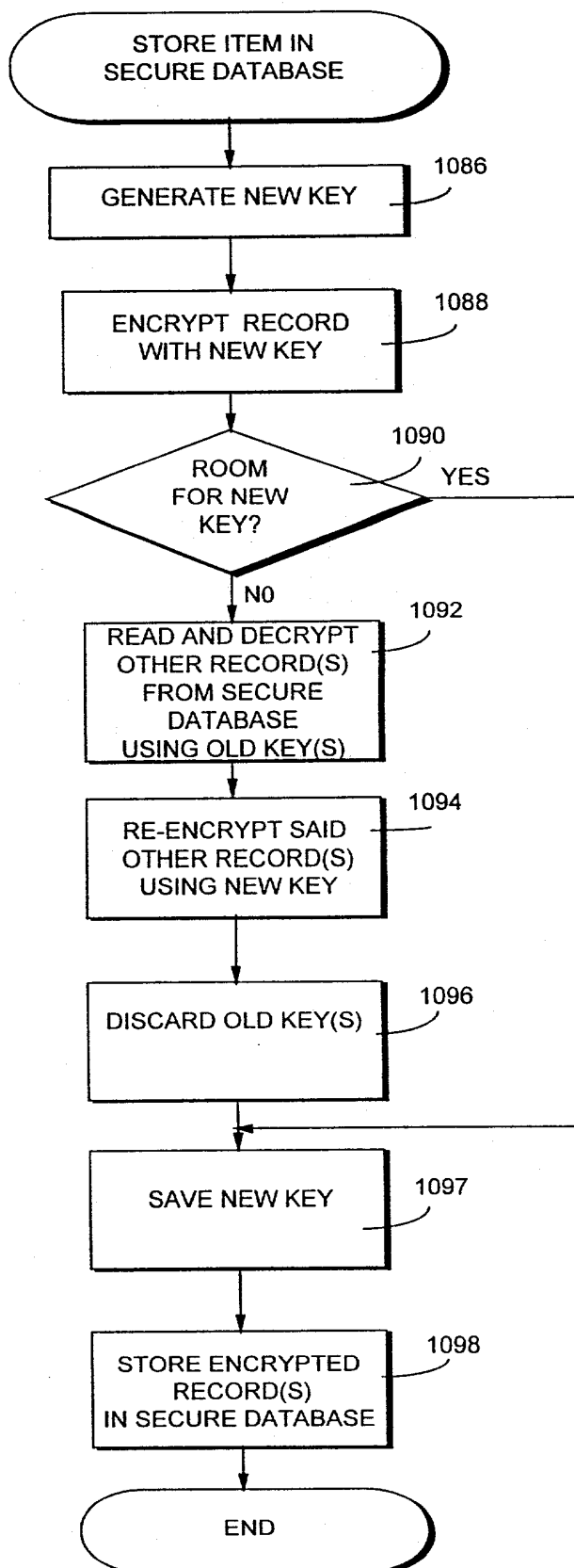


FIG. 39

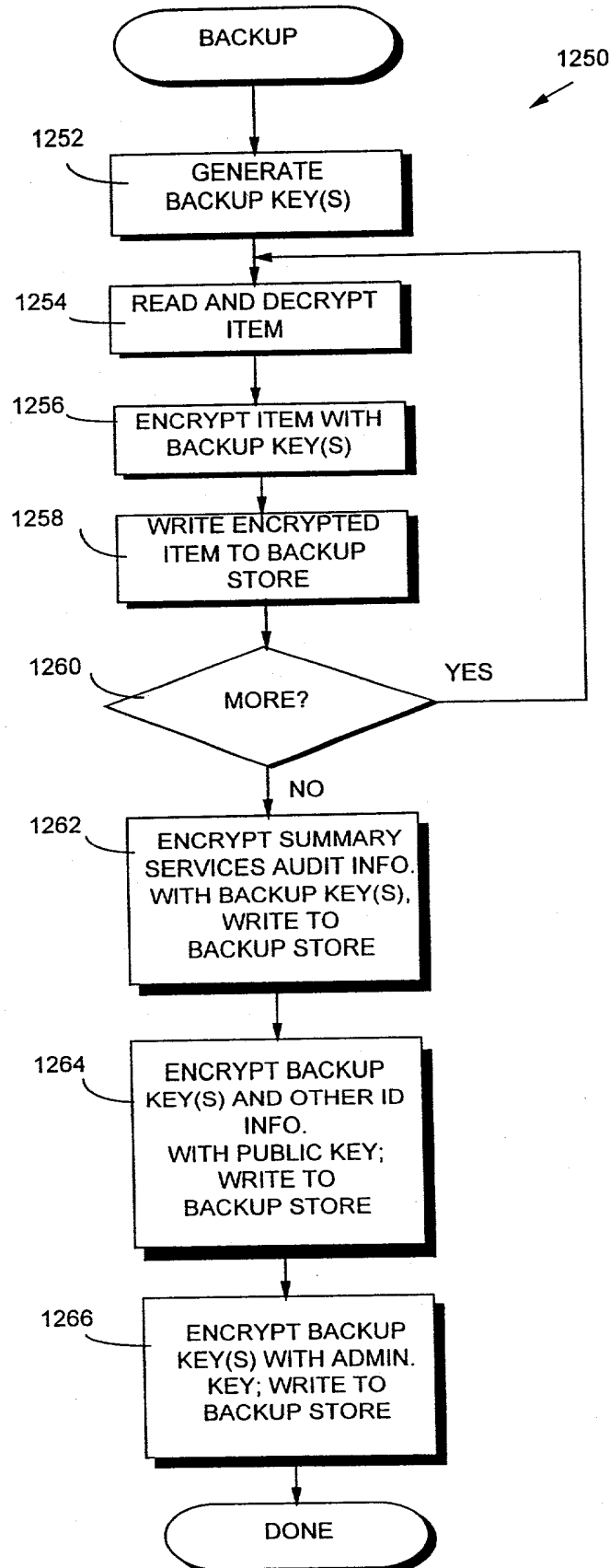
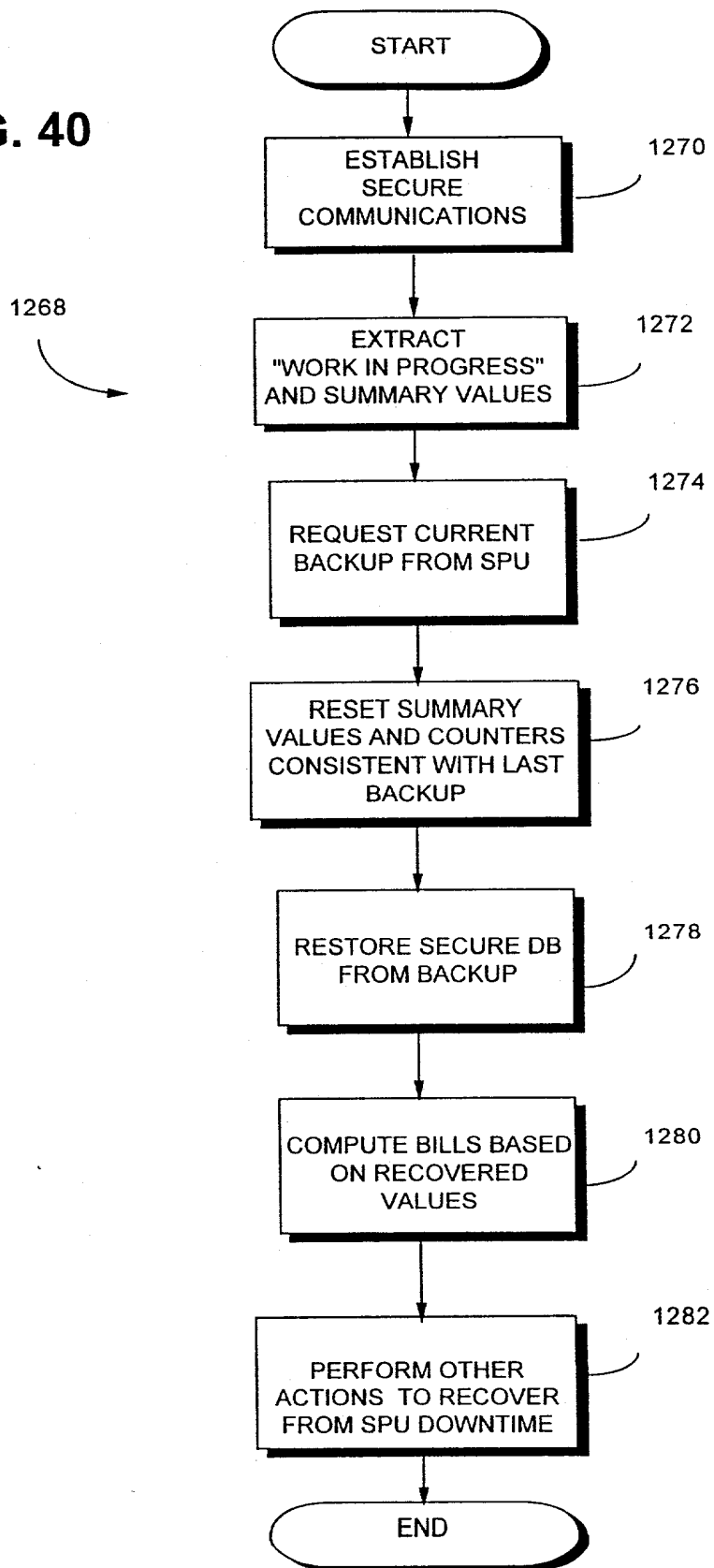
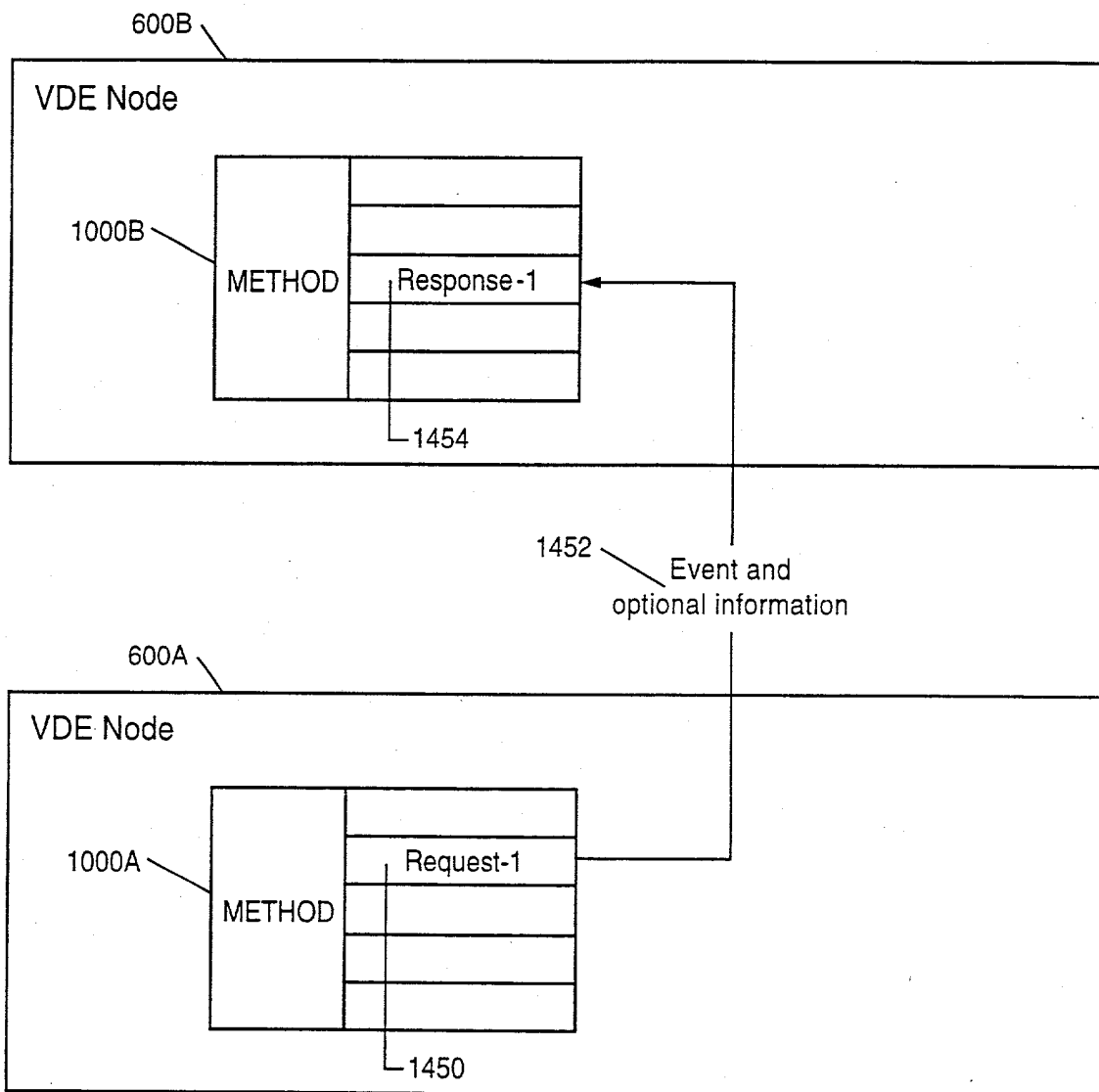
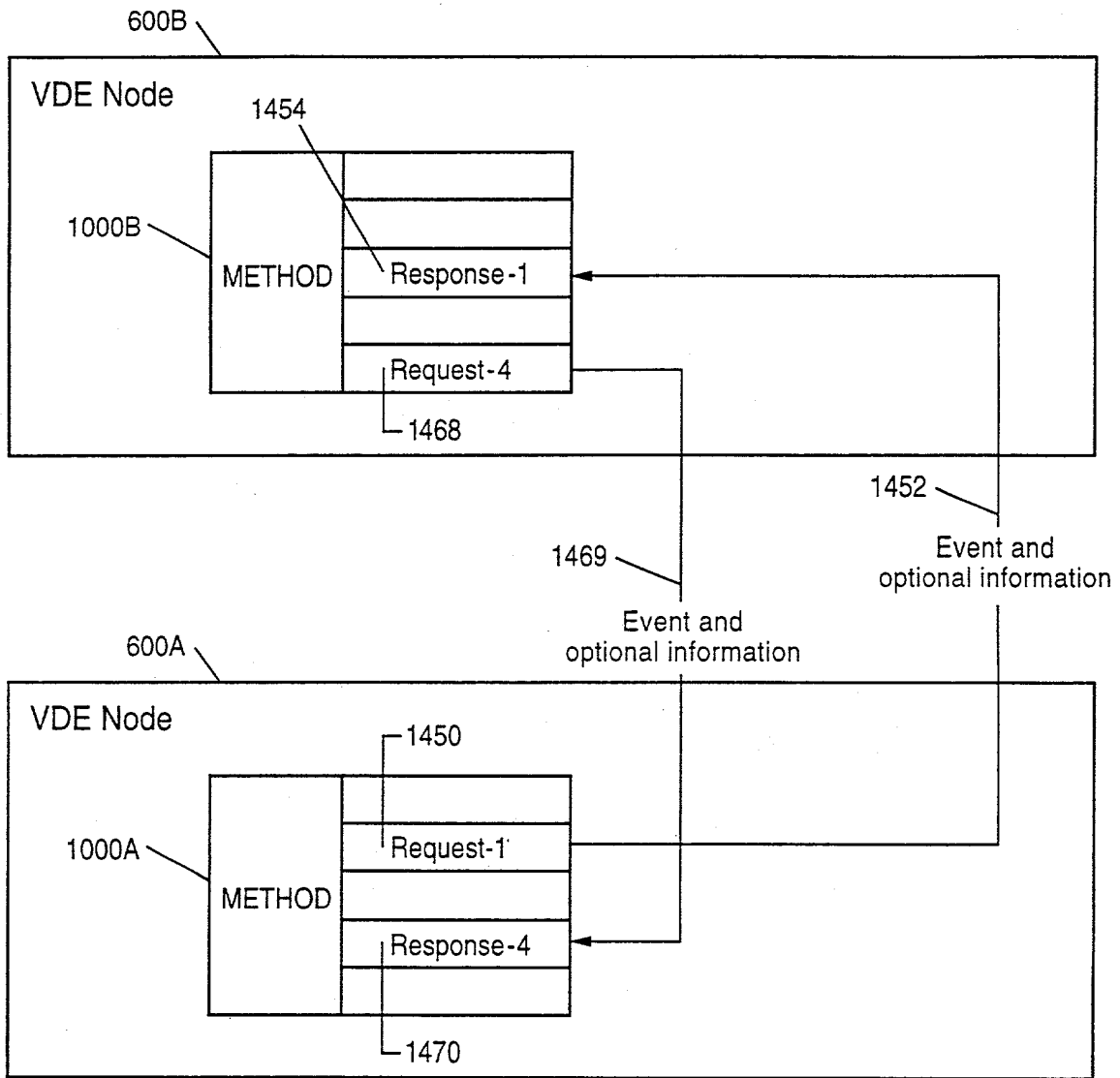


FIG. 40



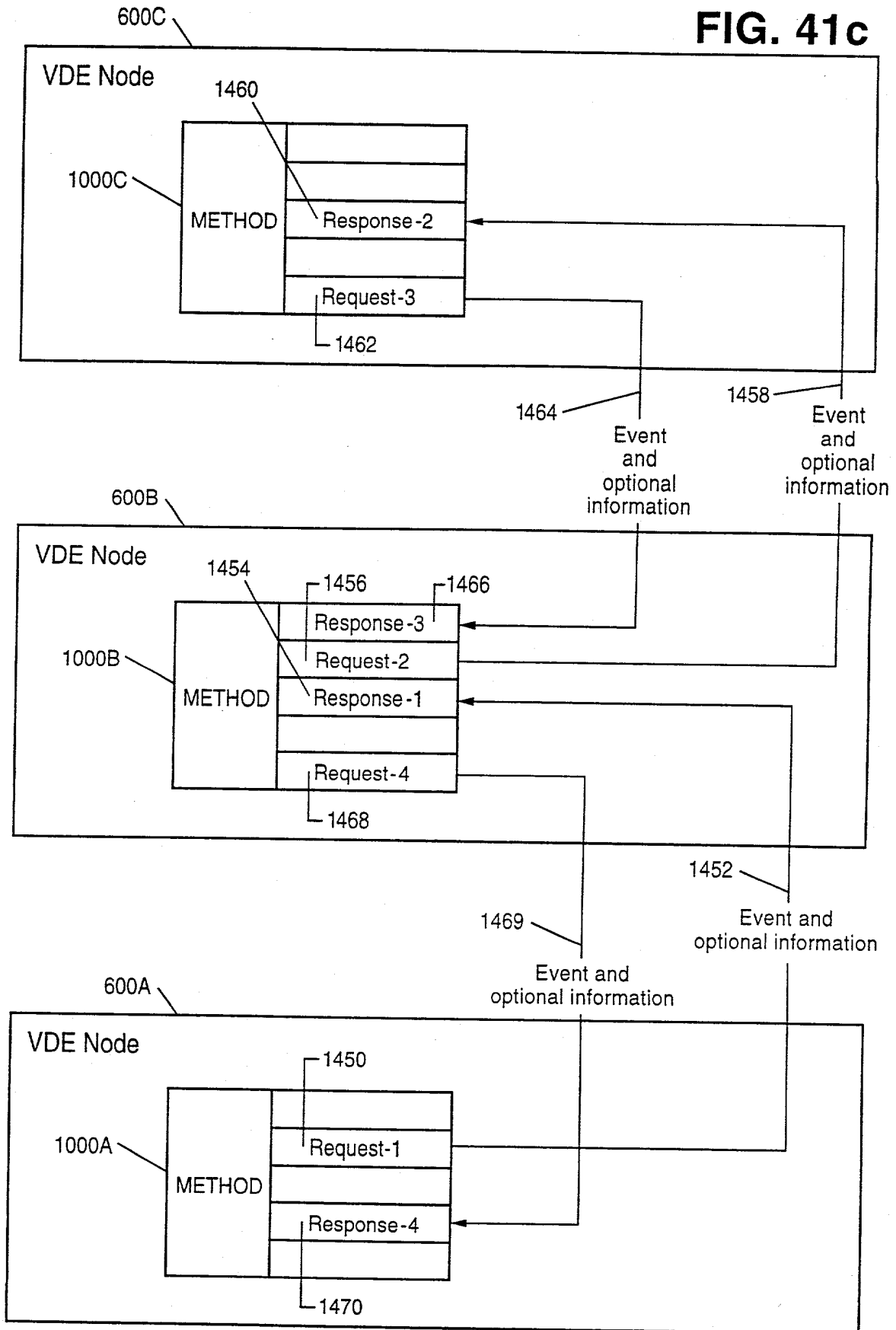


**FIG. 41a**

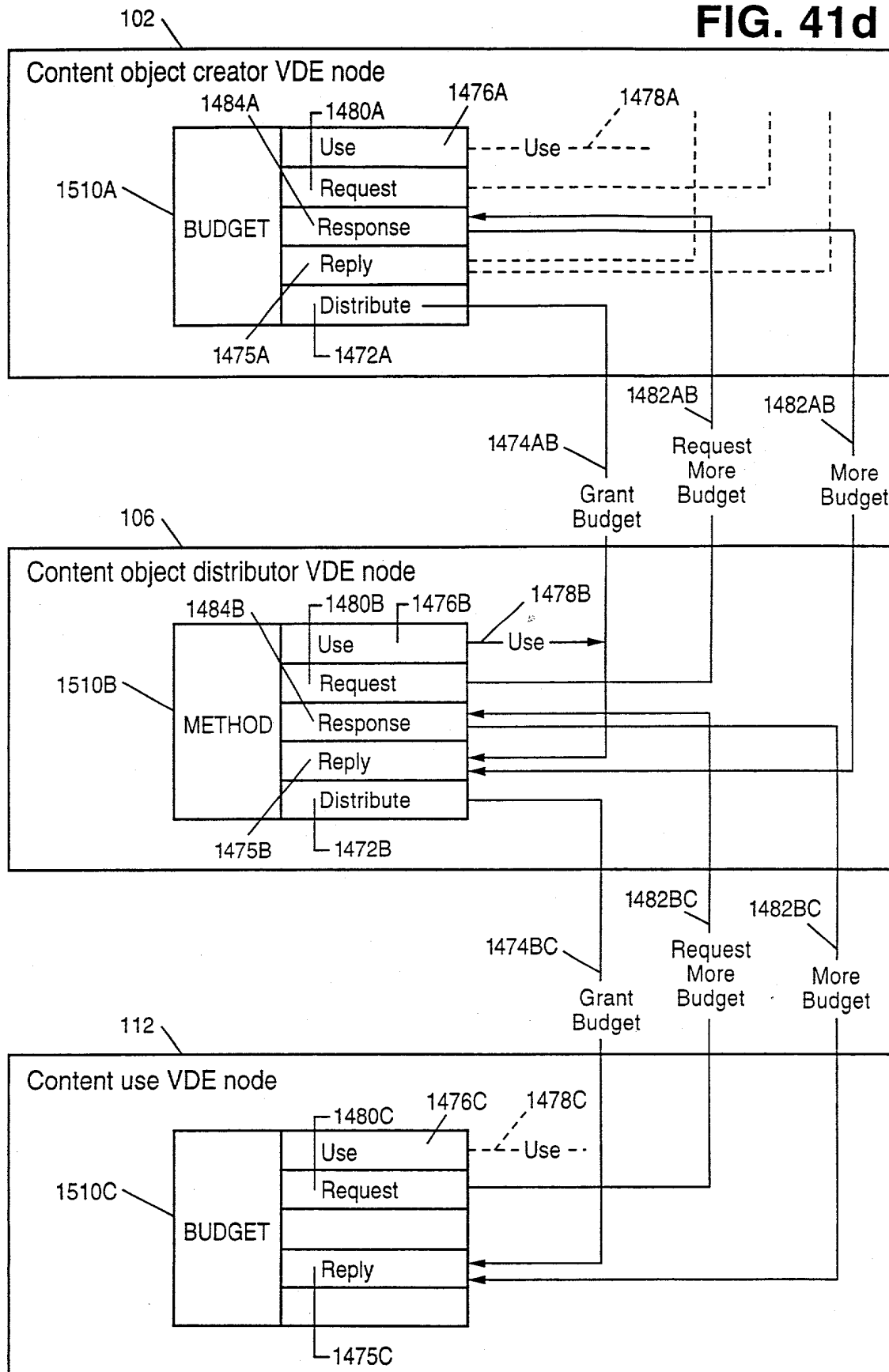


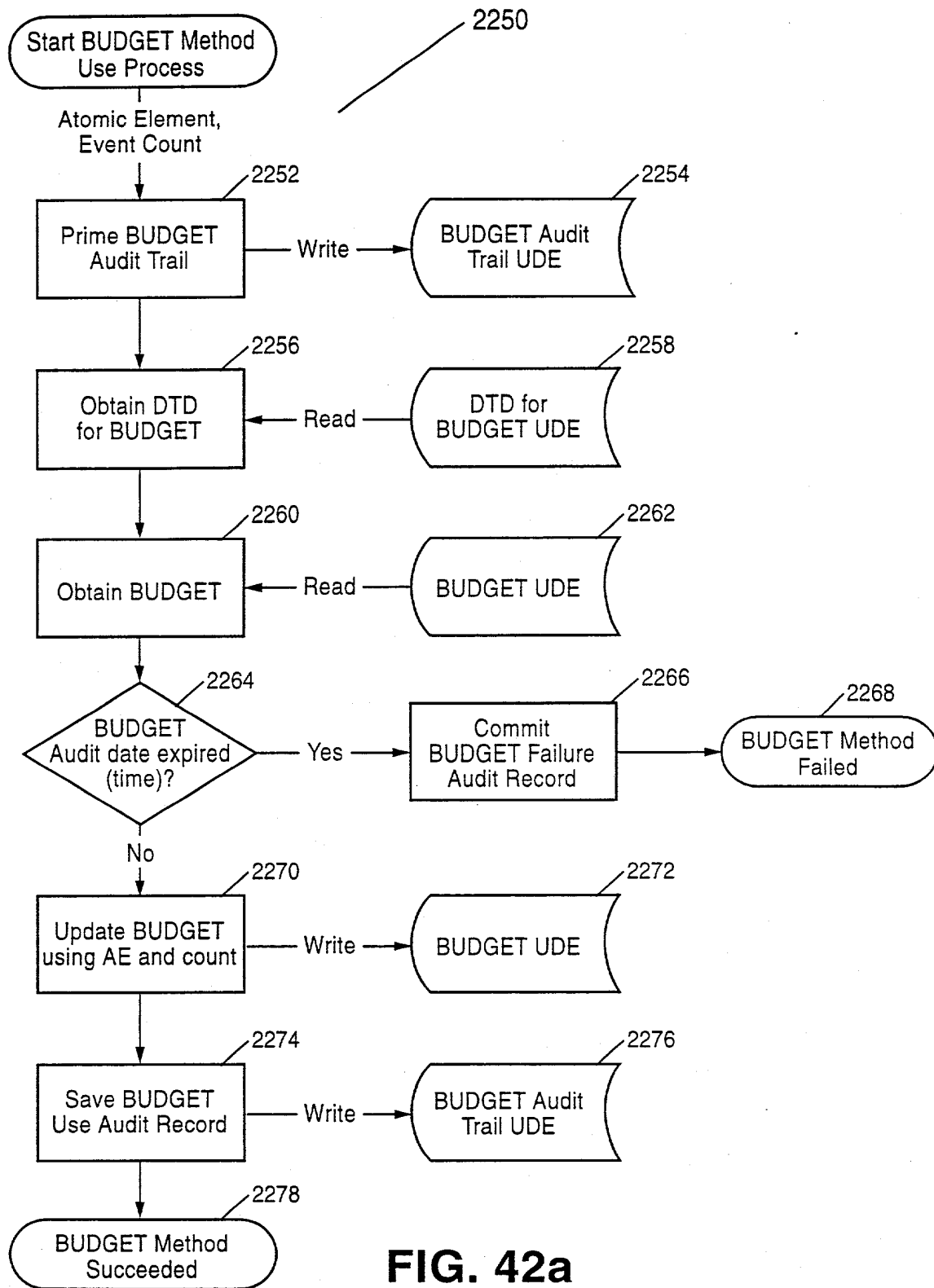
**FIG. 41b**

FIG. 41c

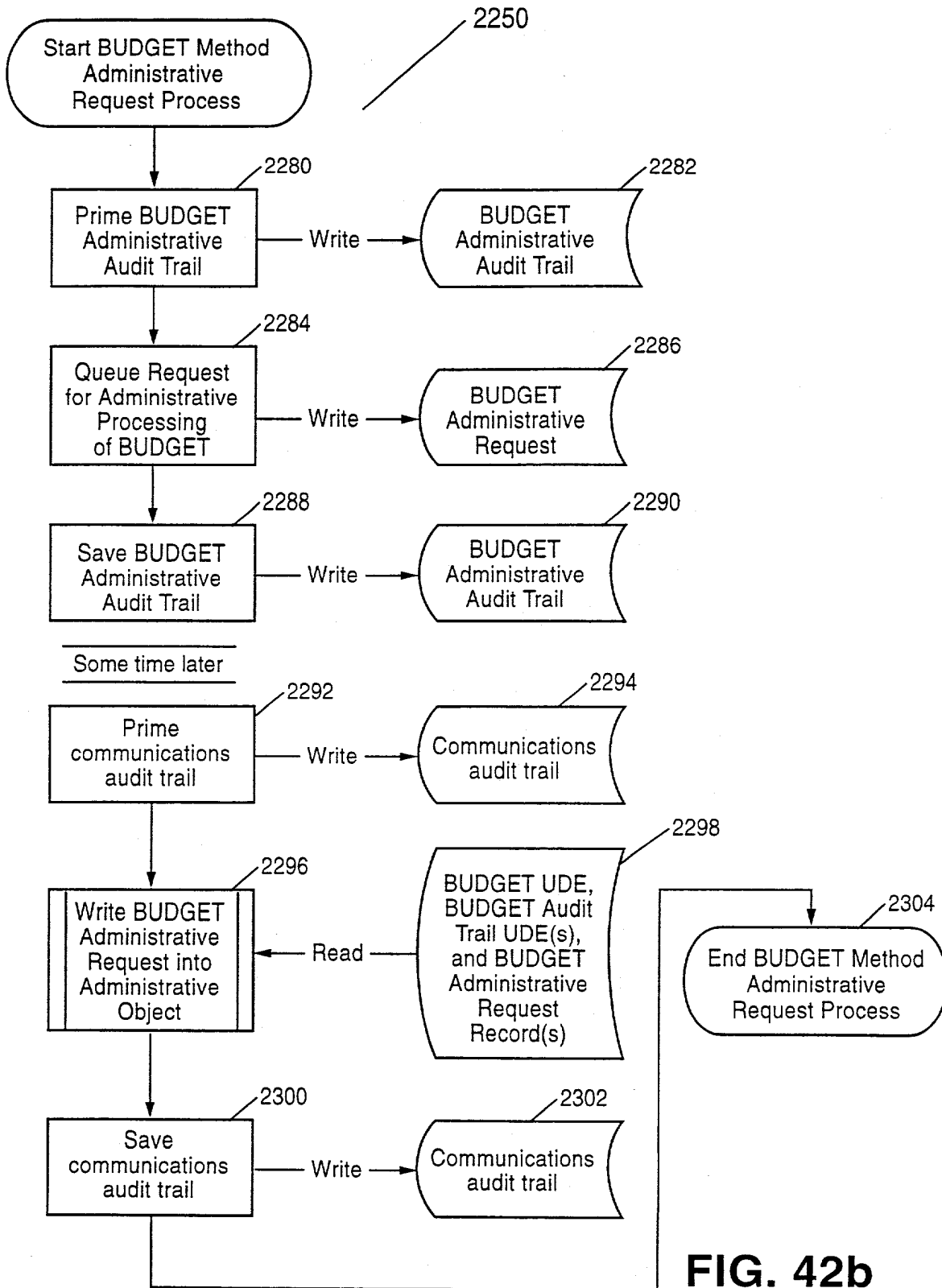


**FIG. 41d**

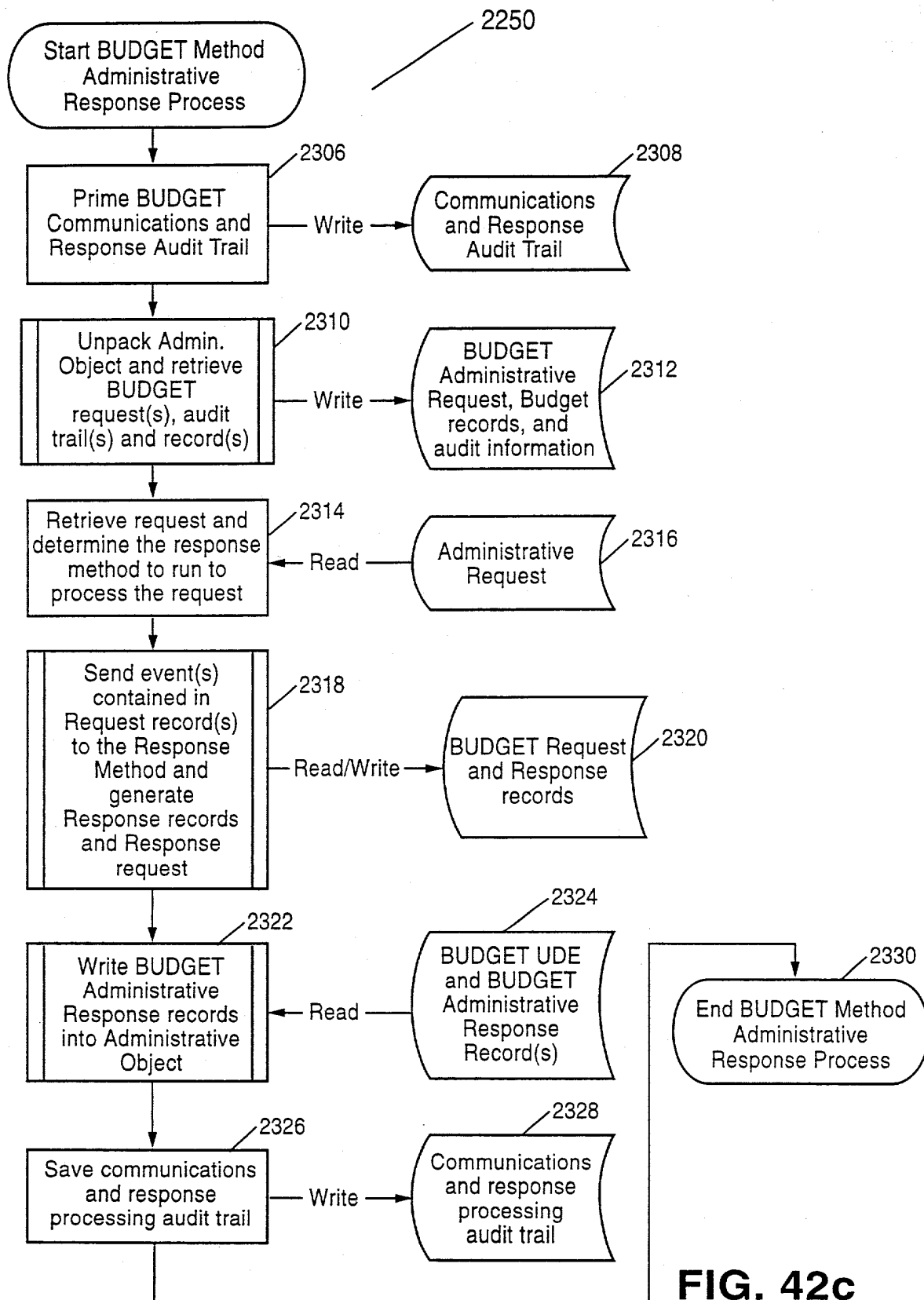




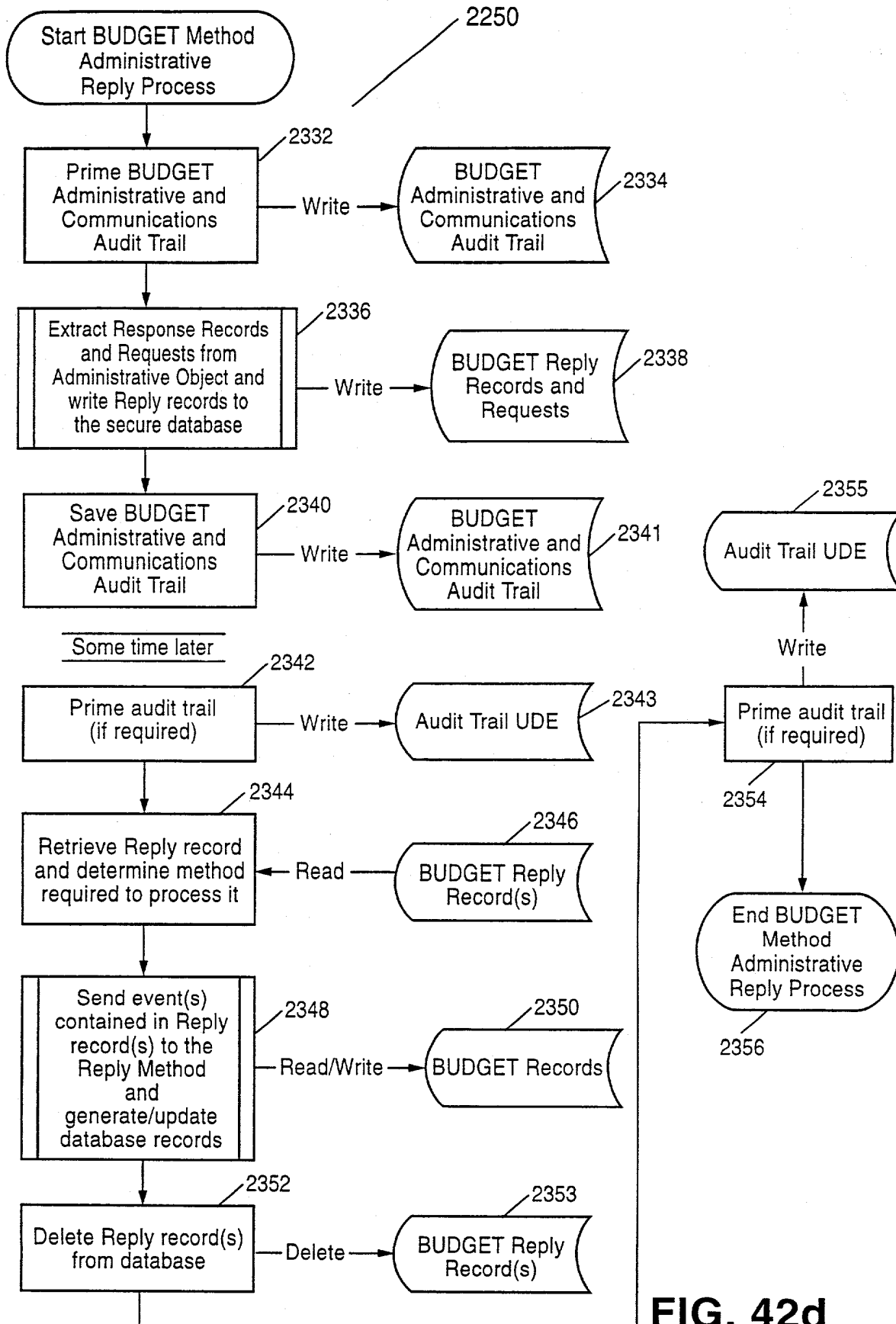




**FIG. 42b**



**FIG. 42c**



**FIG. 42d**

FIG. 43a

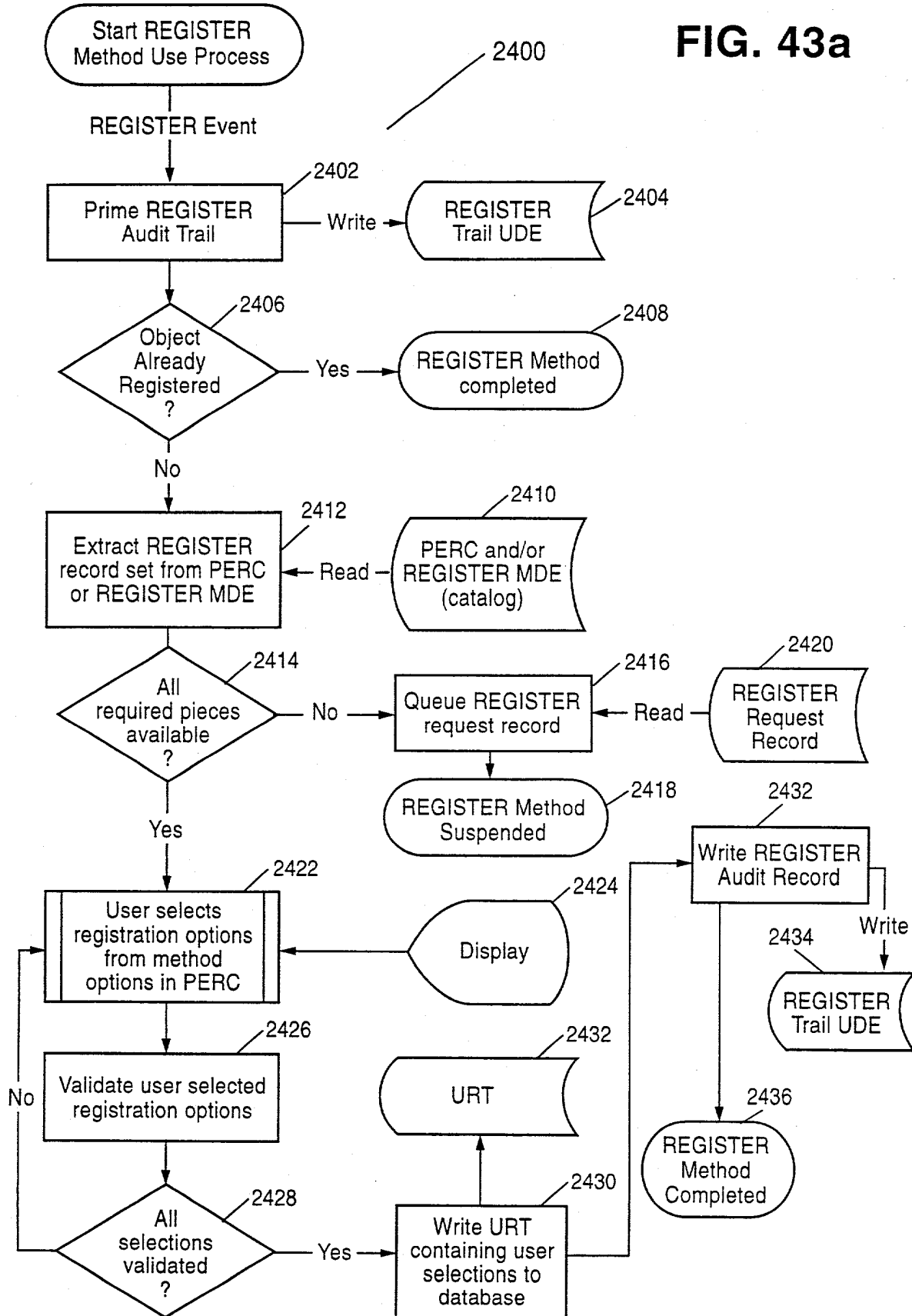


FIG. 43b

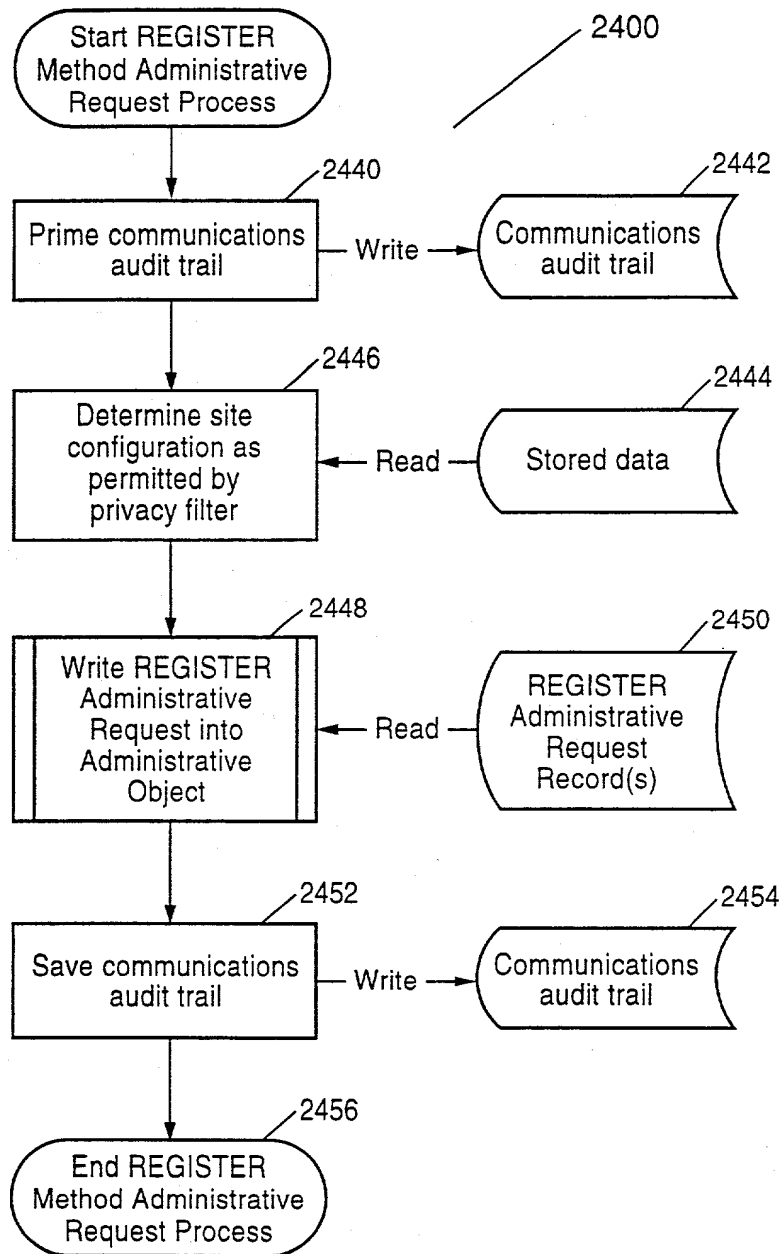


FIG. 43c

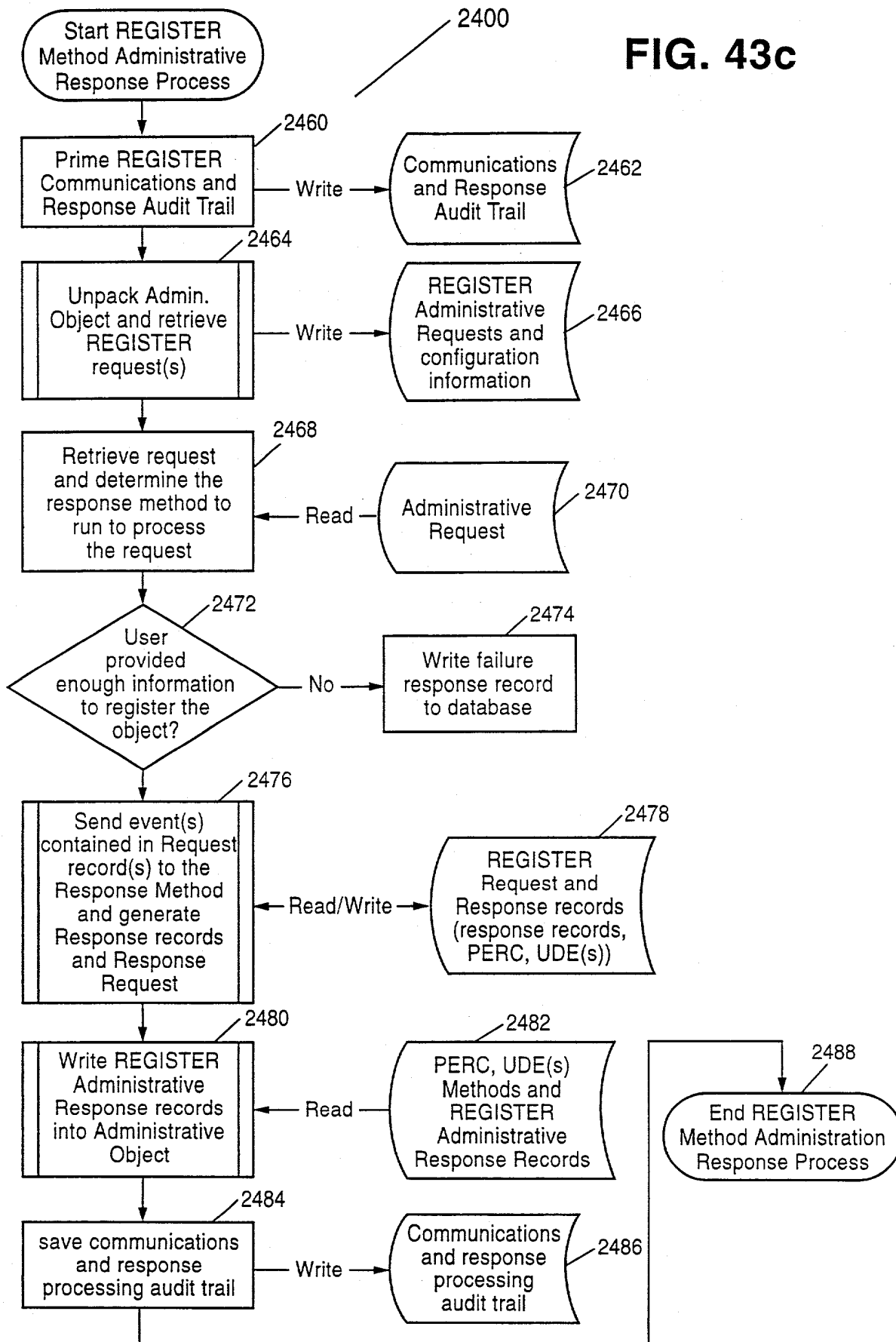
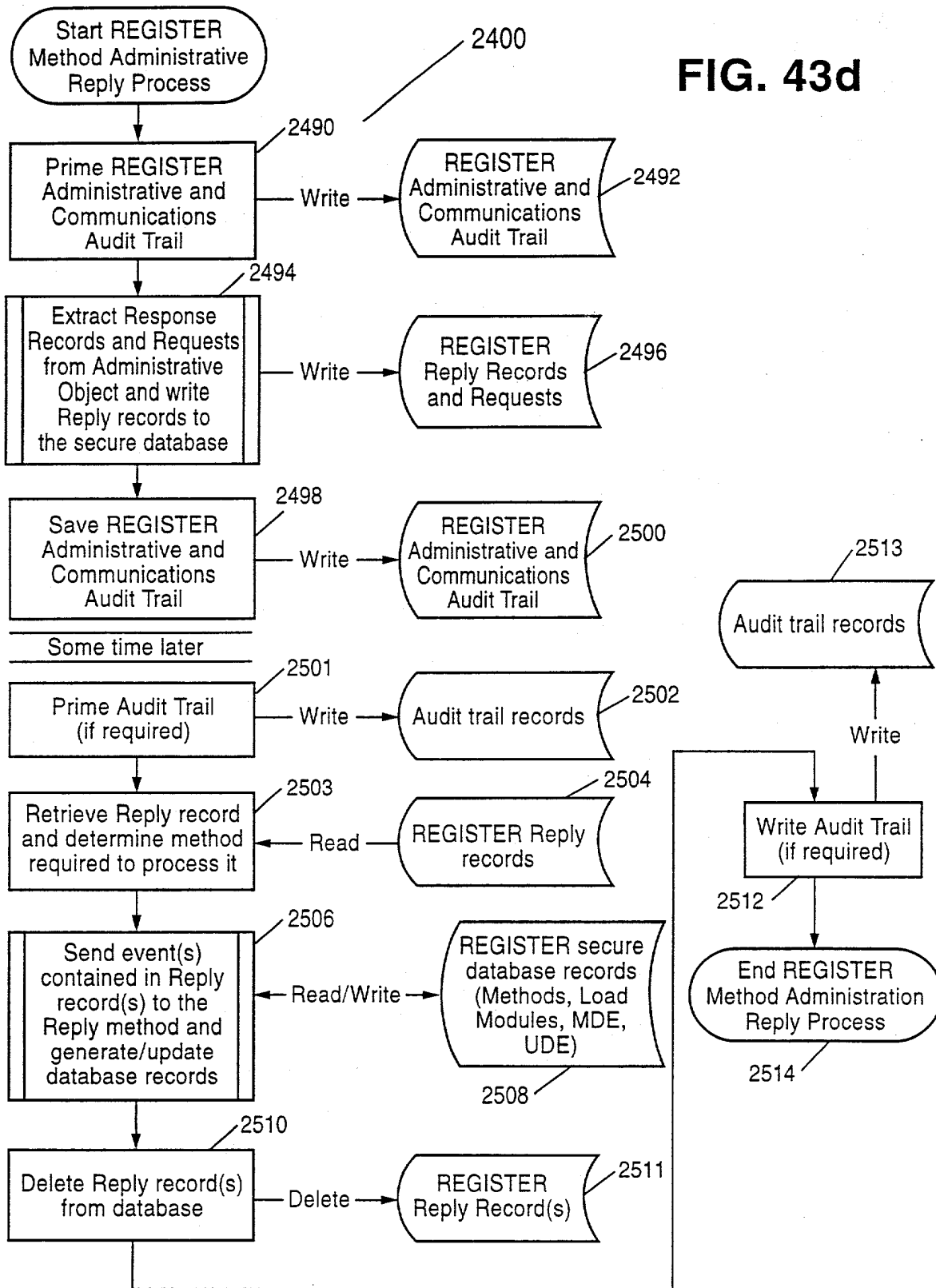
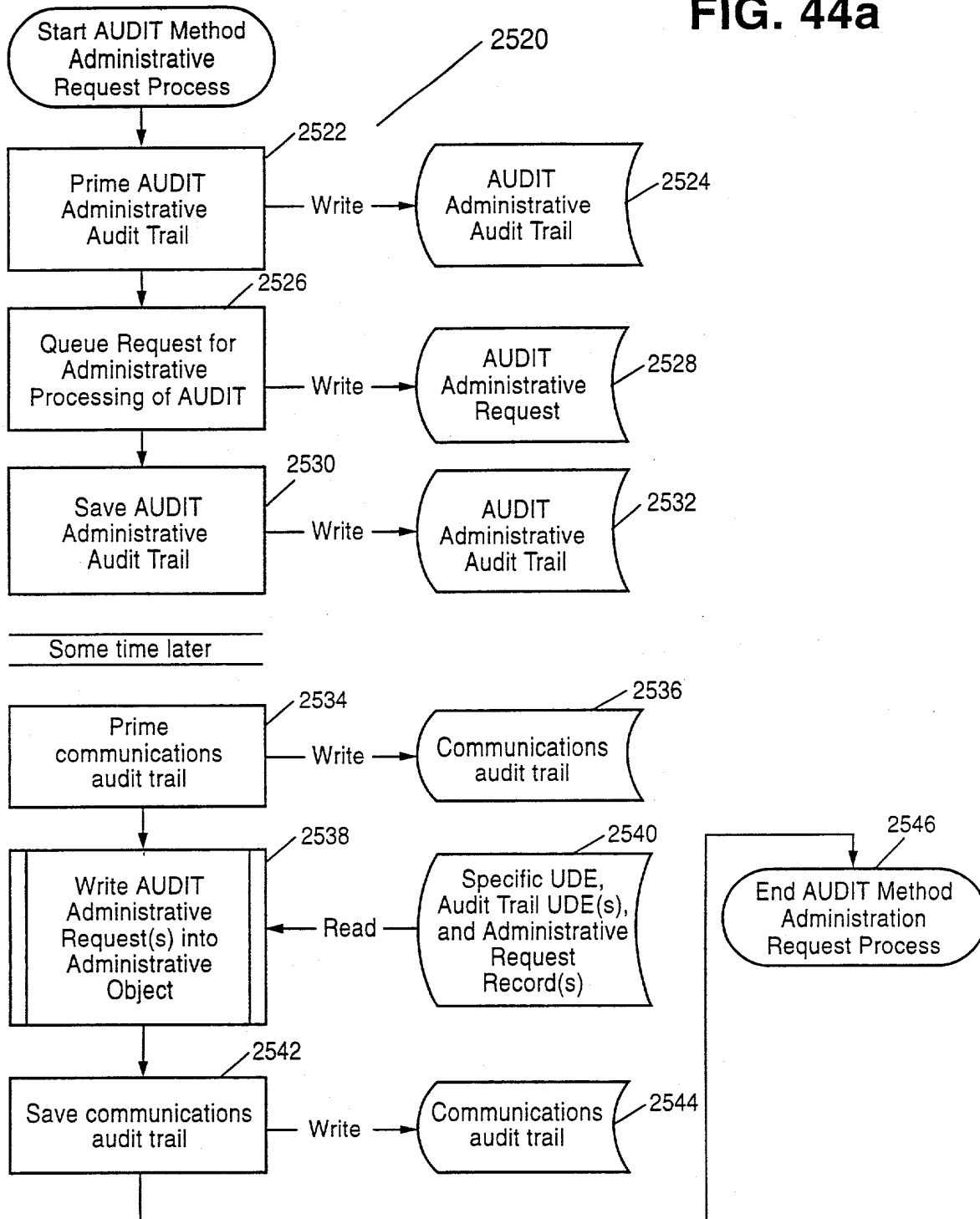


FIG. 43d

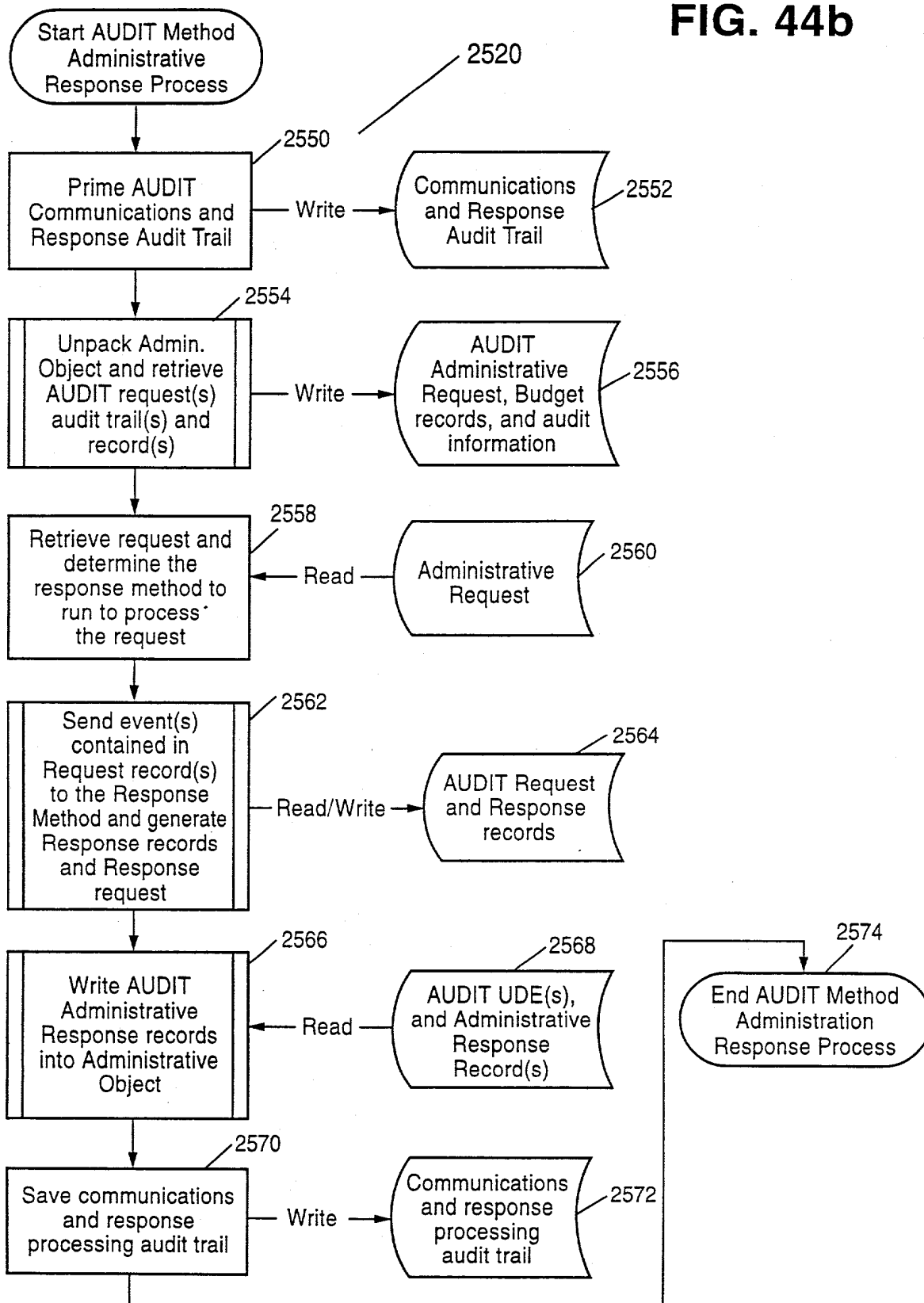


**FIG. 44a**





**FIG. 44b**



**FIG. 44c**

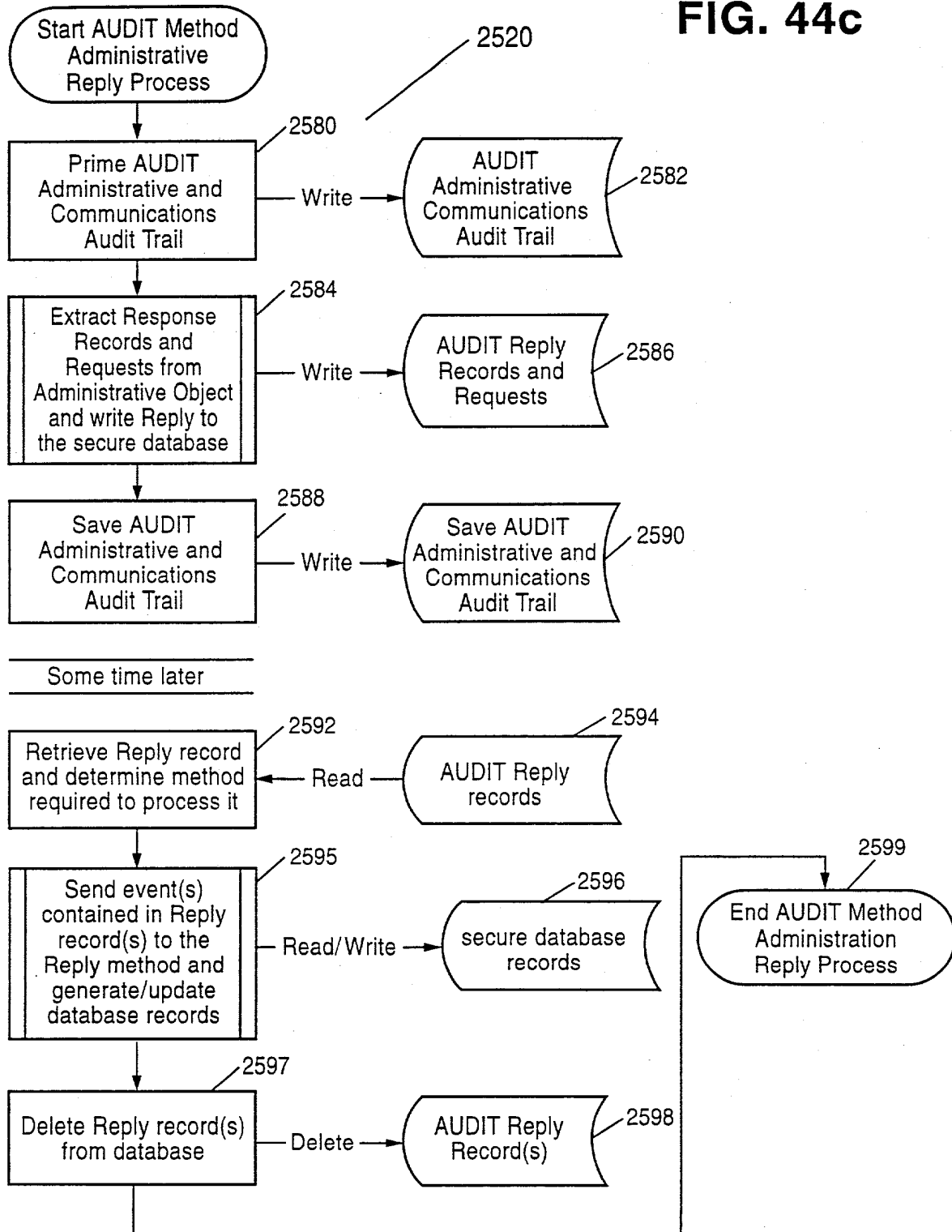




FIG. 46

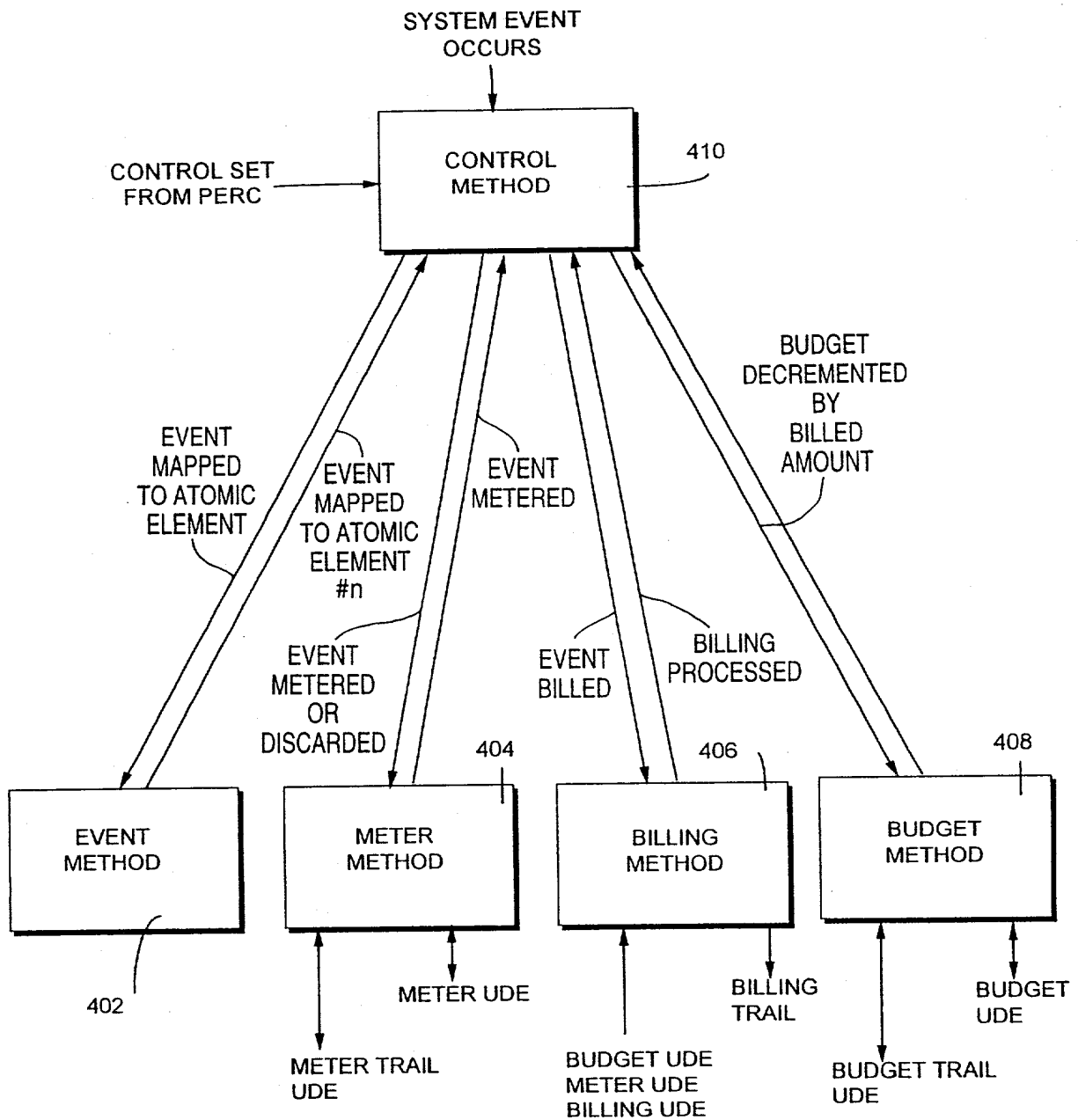
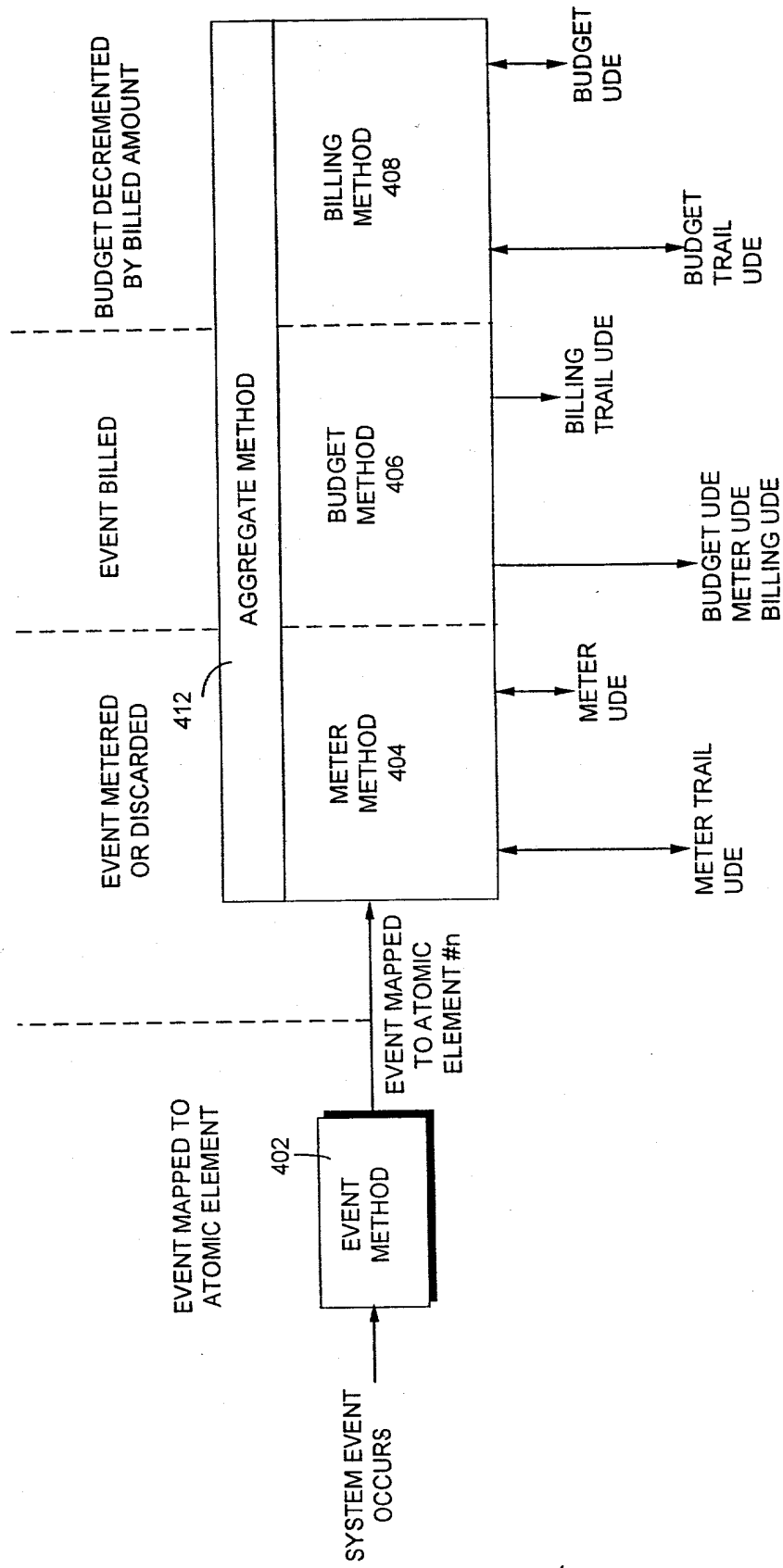
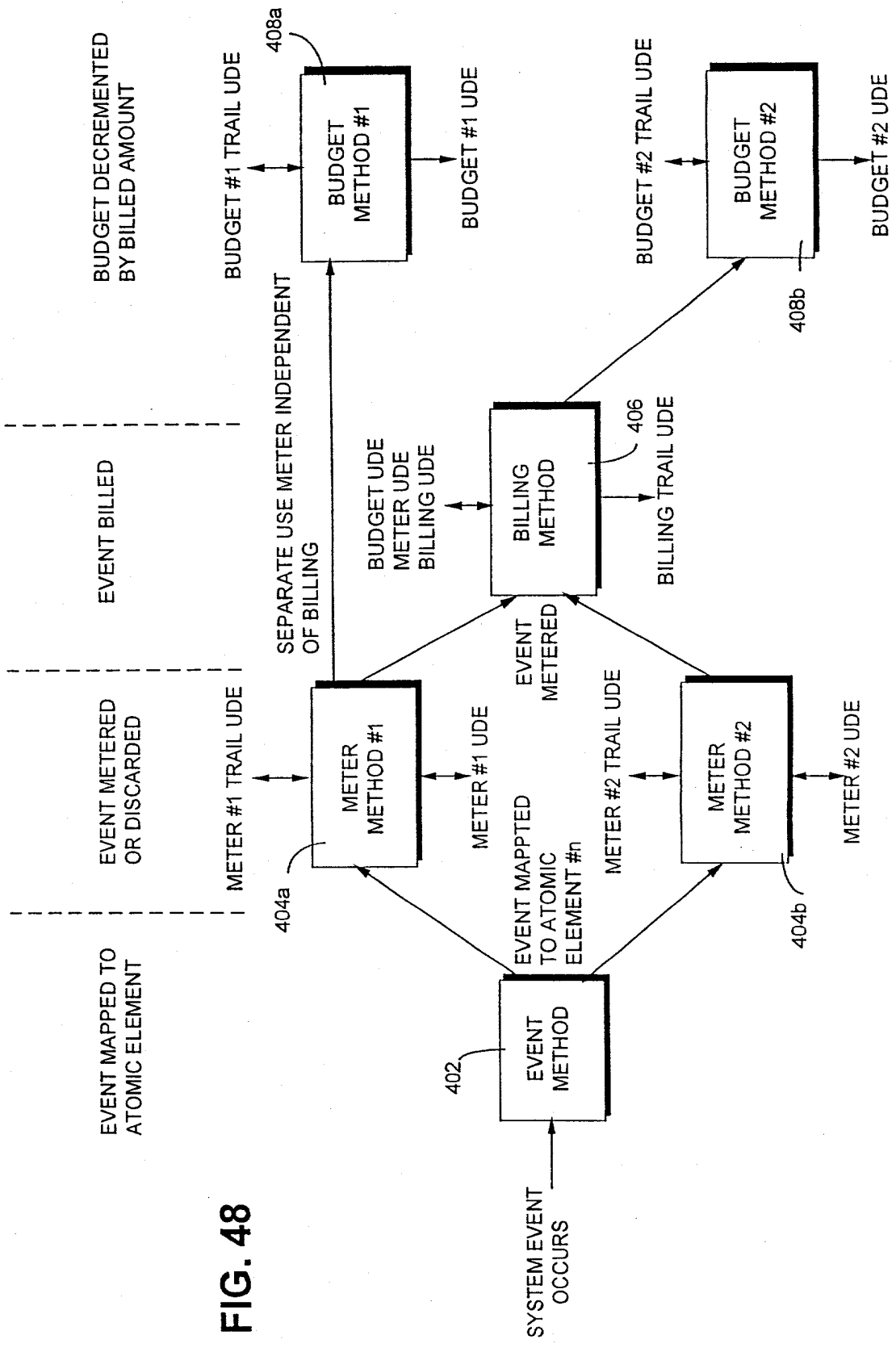


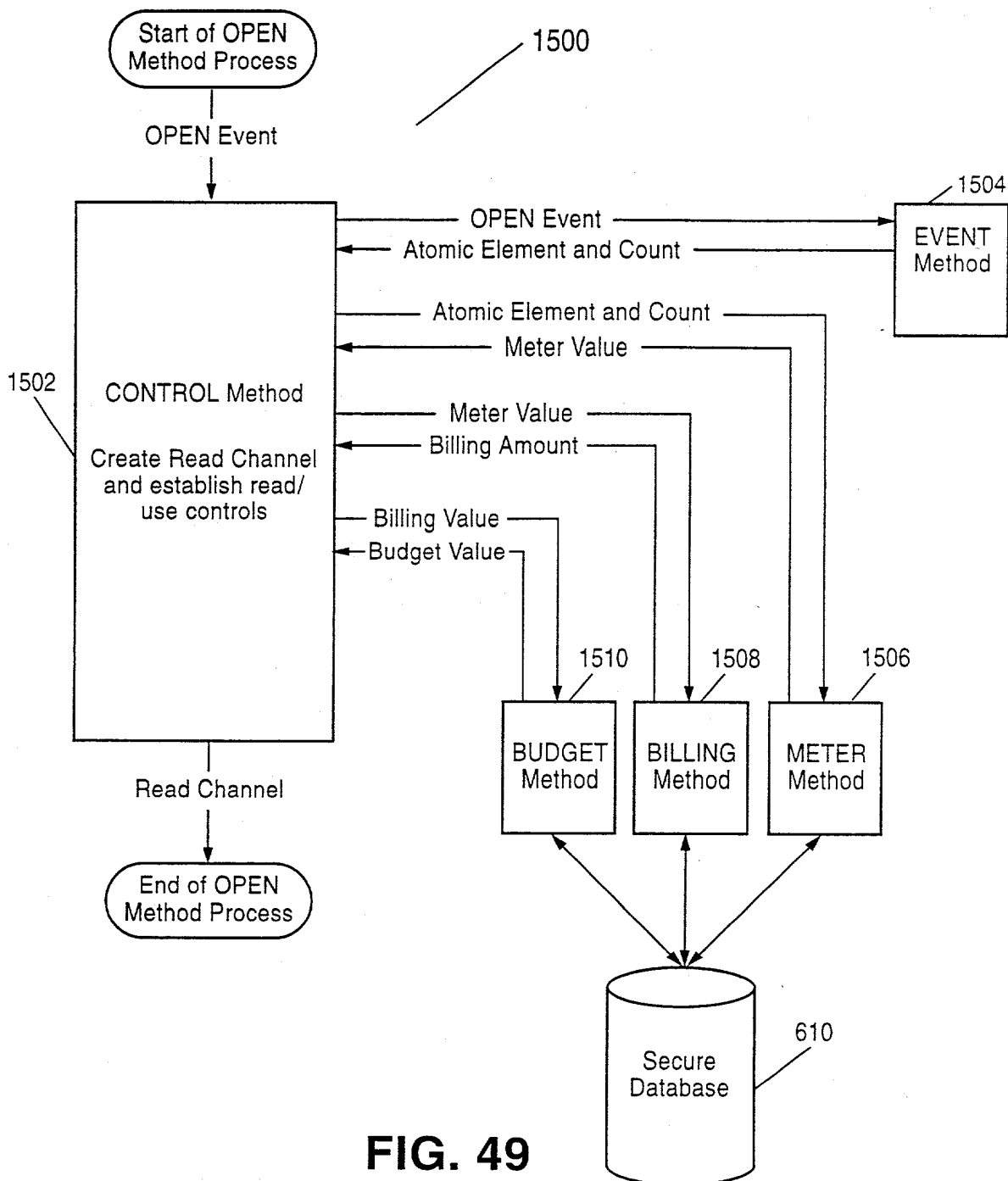
FIG. 47



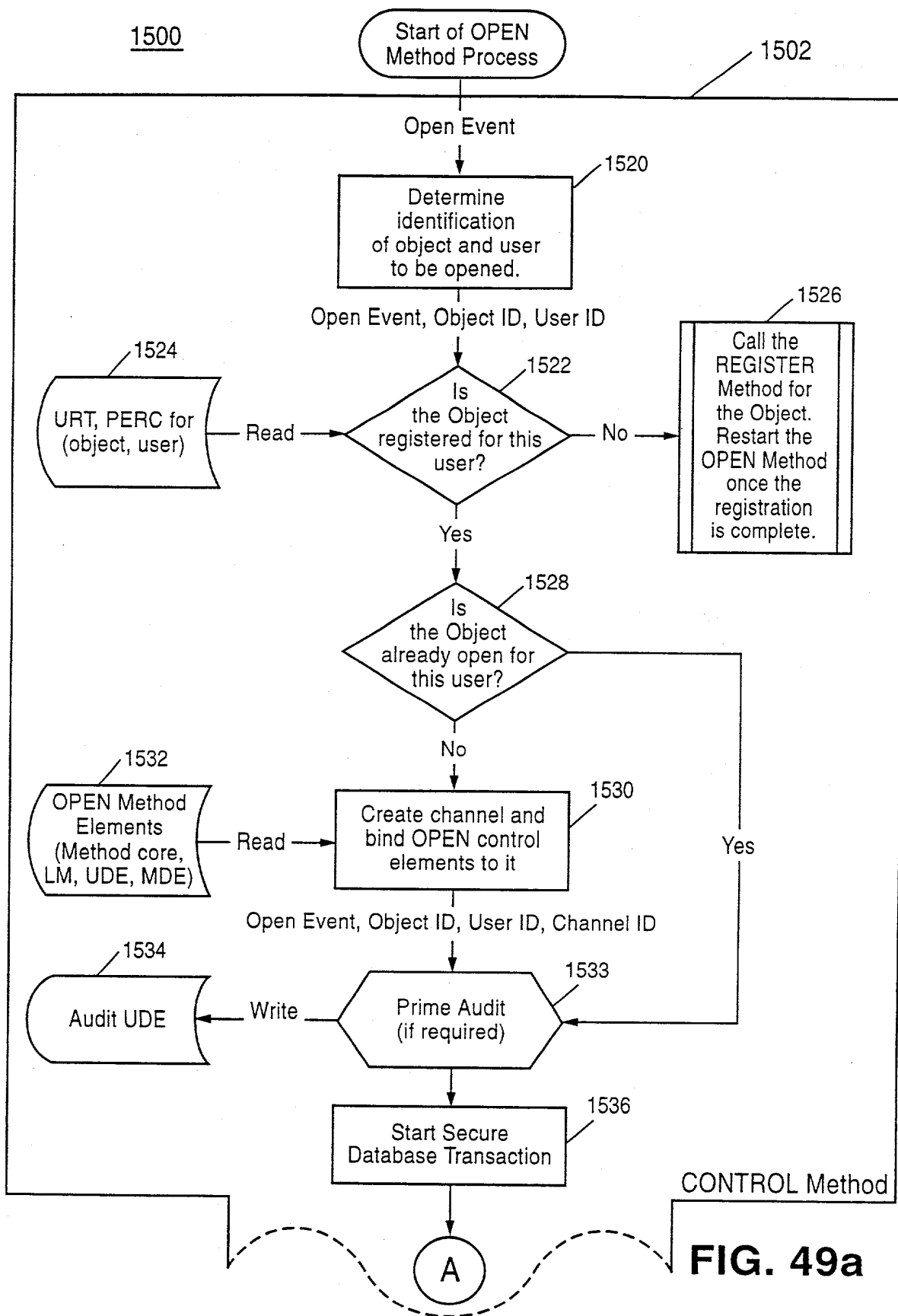
US 2004/018711 A1  
FIG. 48  
BRIEF DESCRIPTION OF THE DRAWING  
FIG. 48 is a block diagram of a system for event metering and billing.



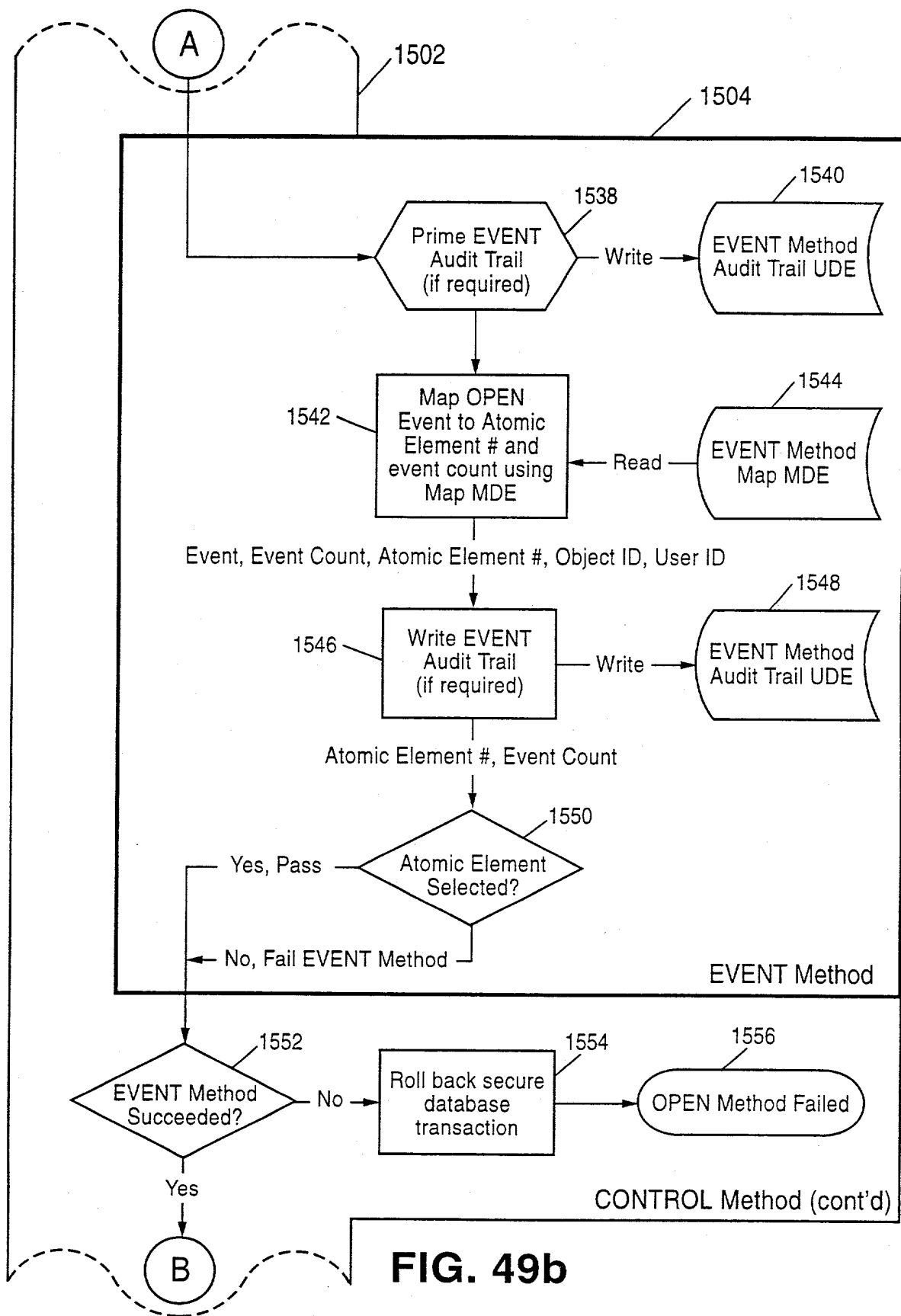
**FIG. 48**

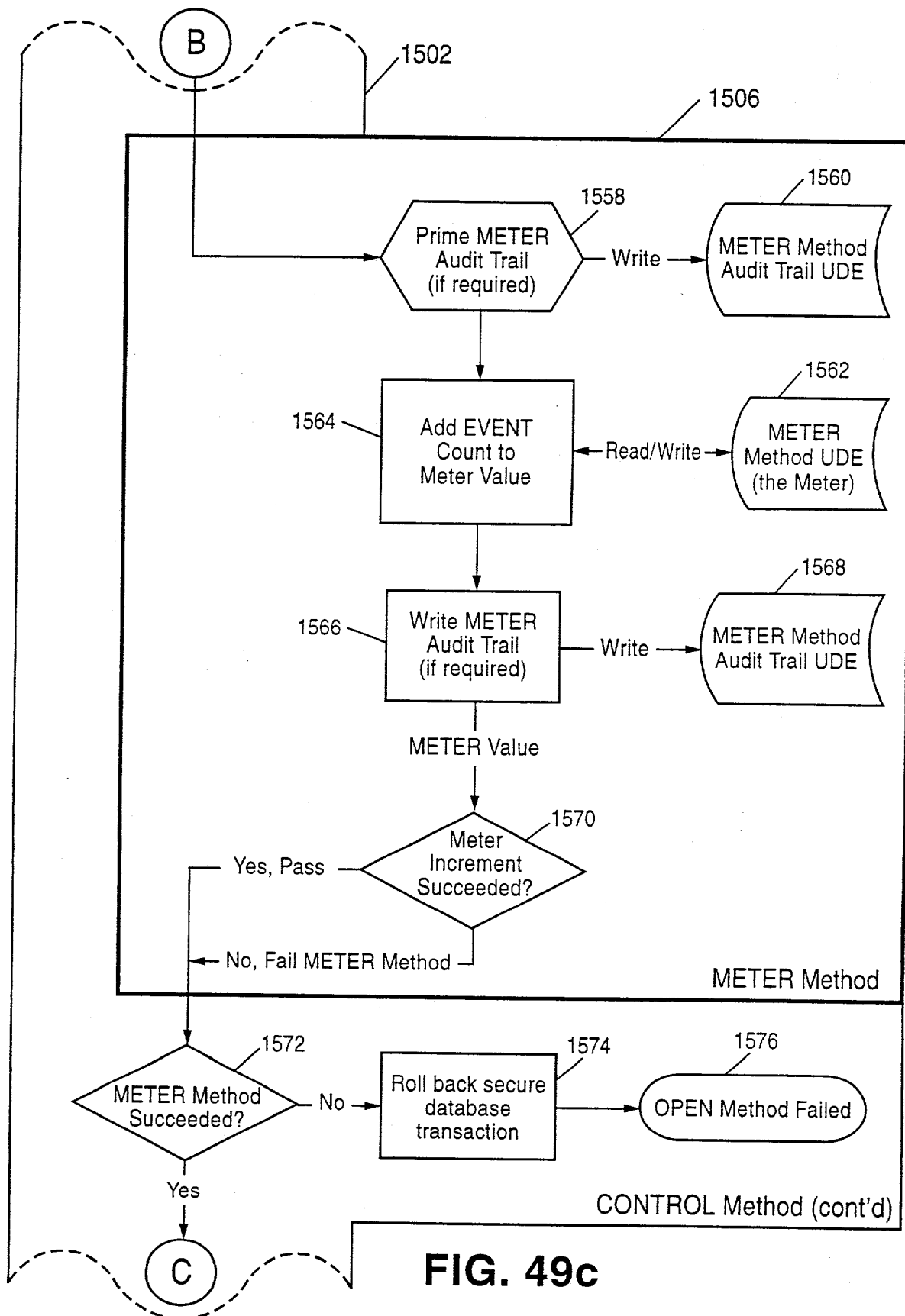


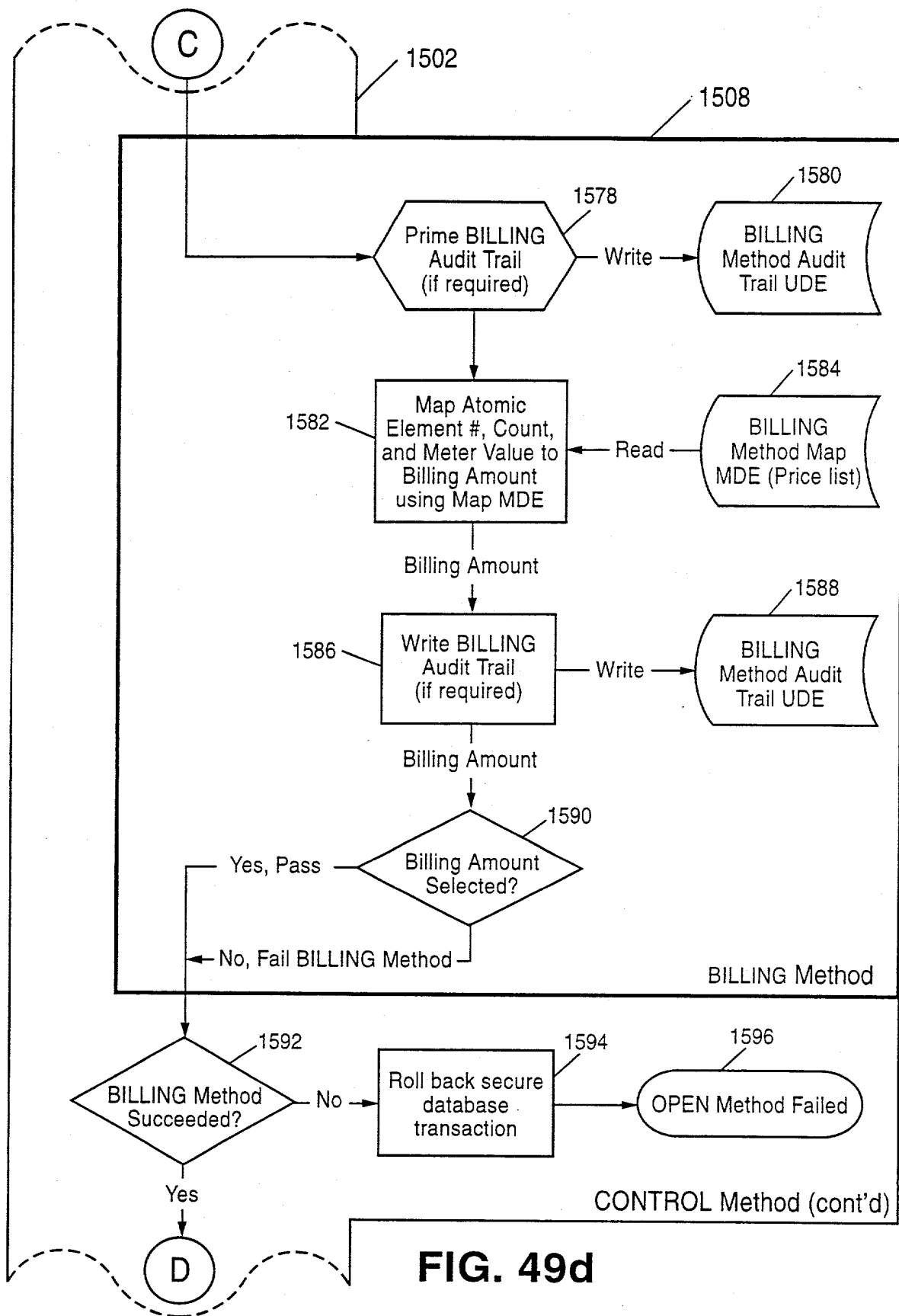
**FIG. 49**



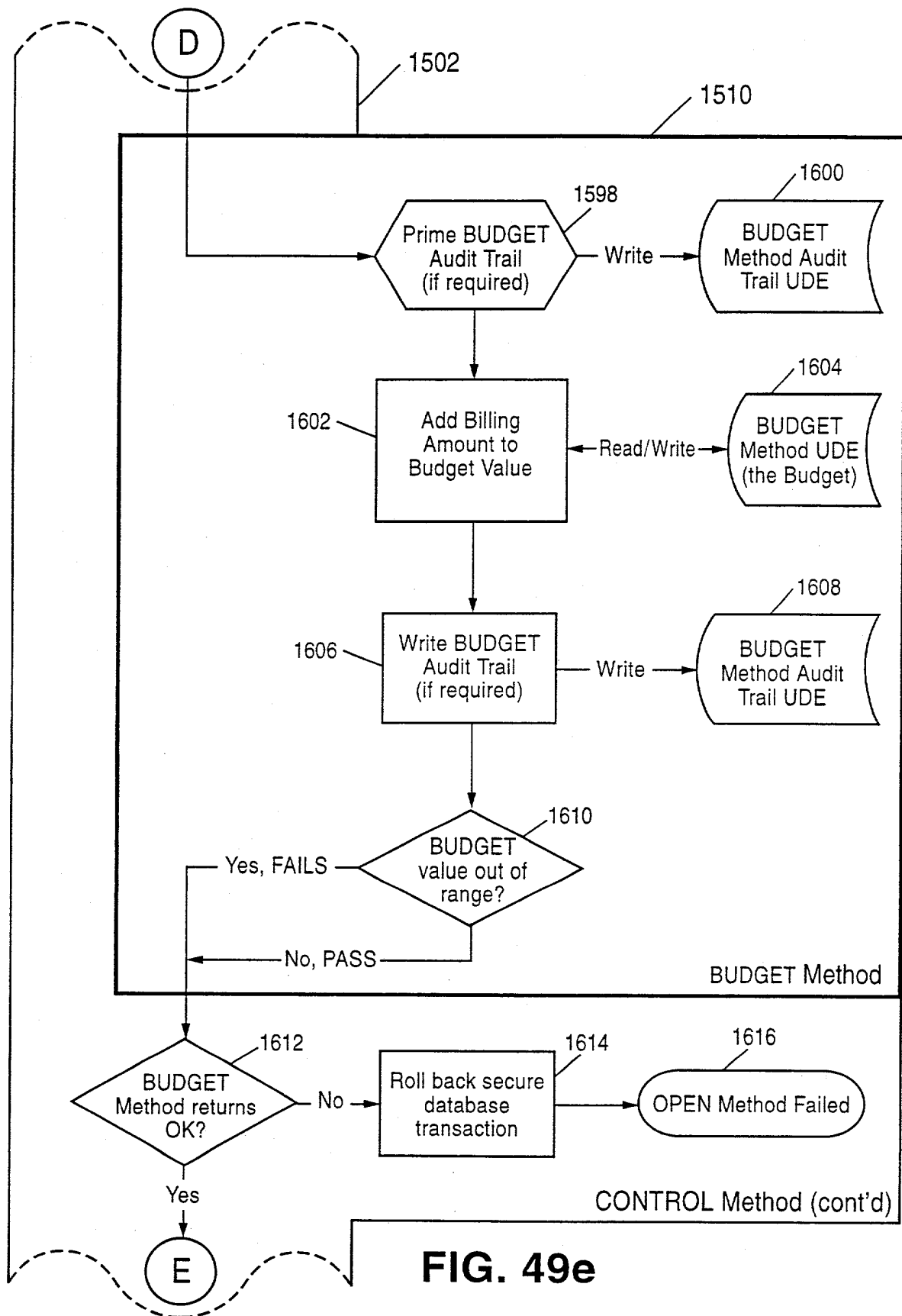


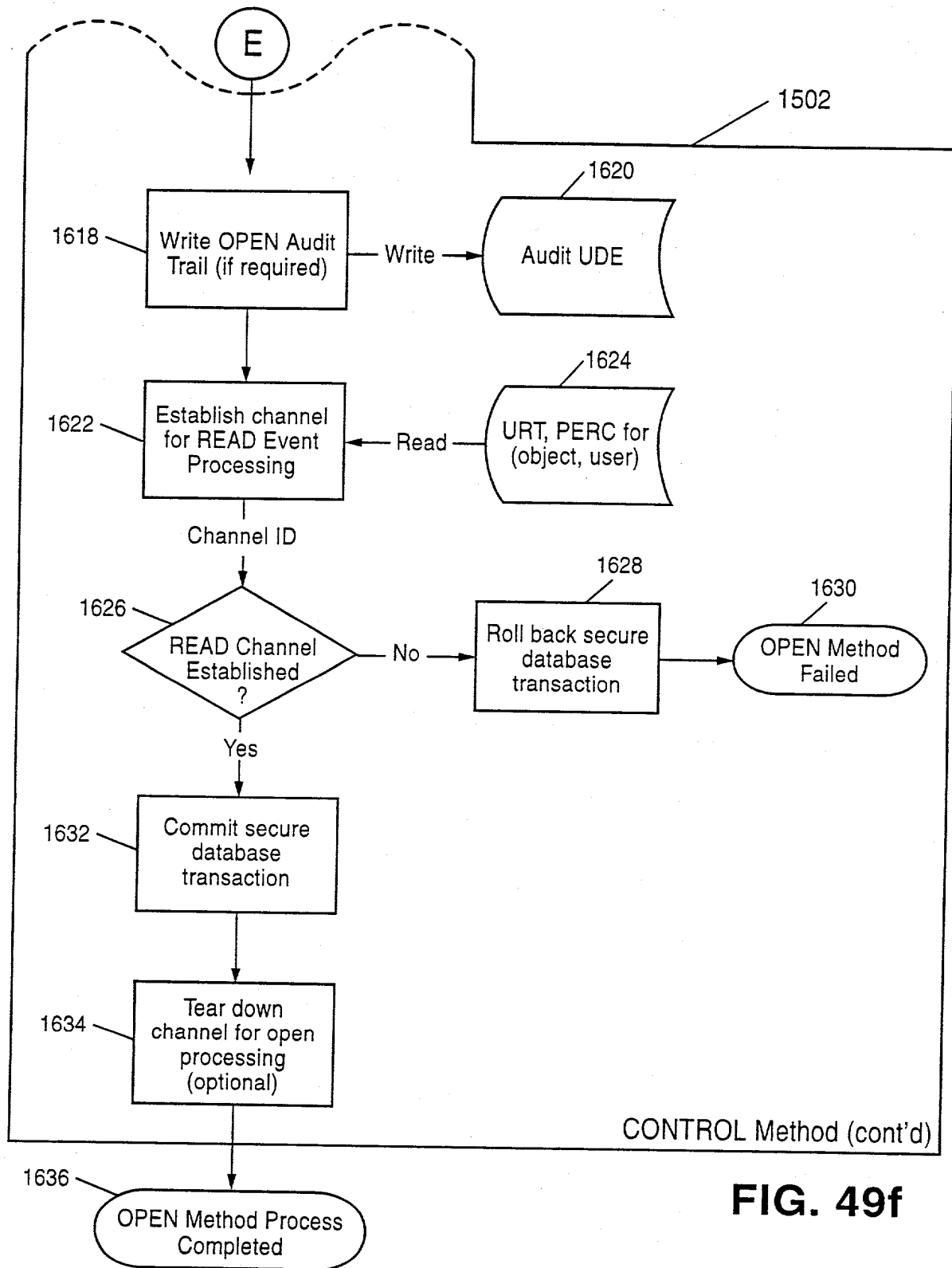




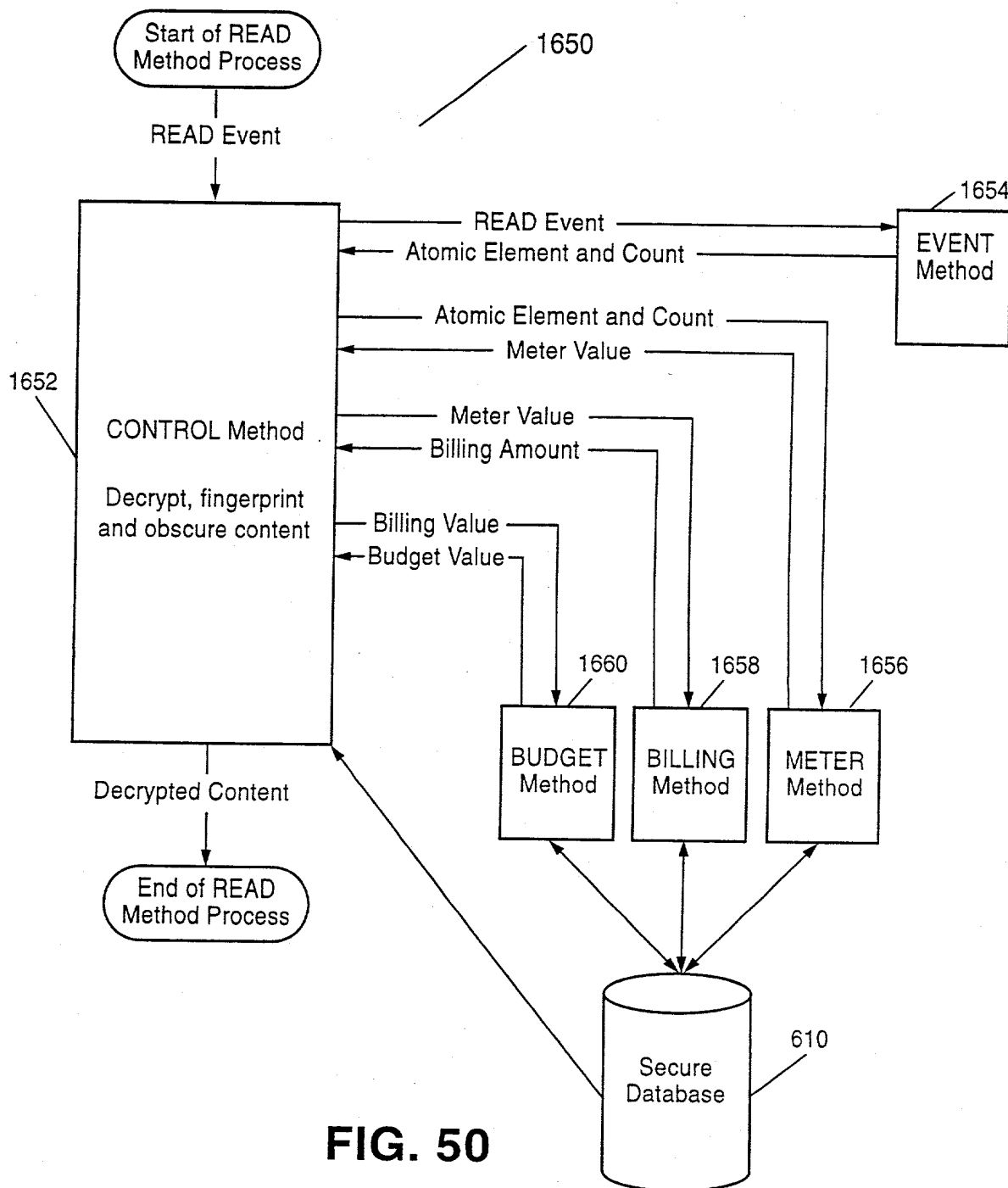


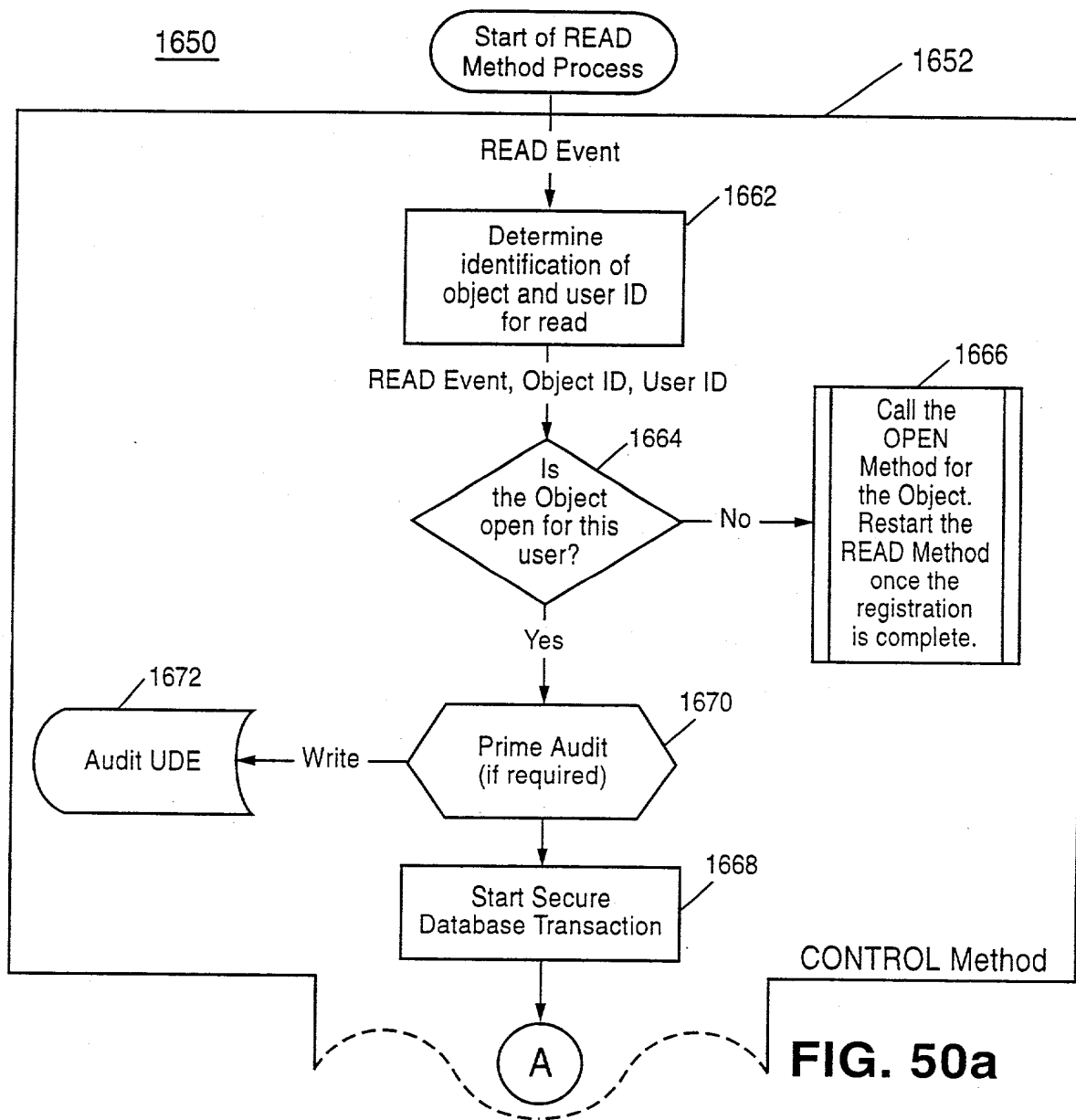
**FIG. 49d**

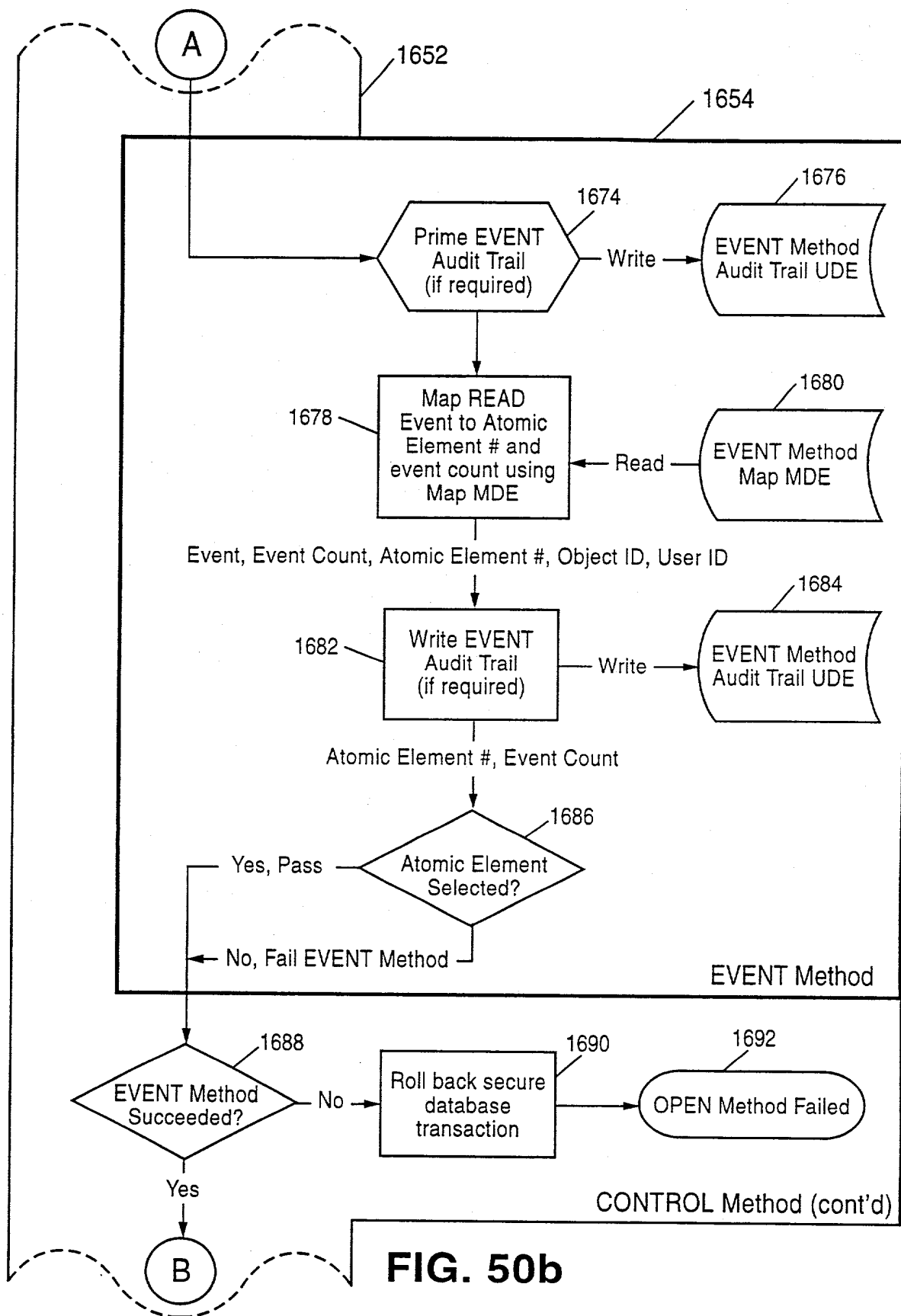




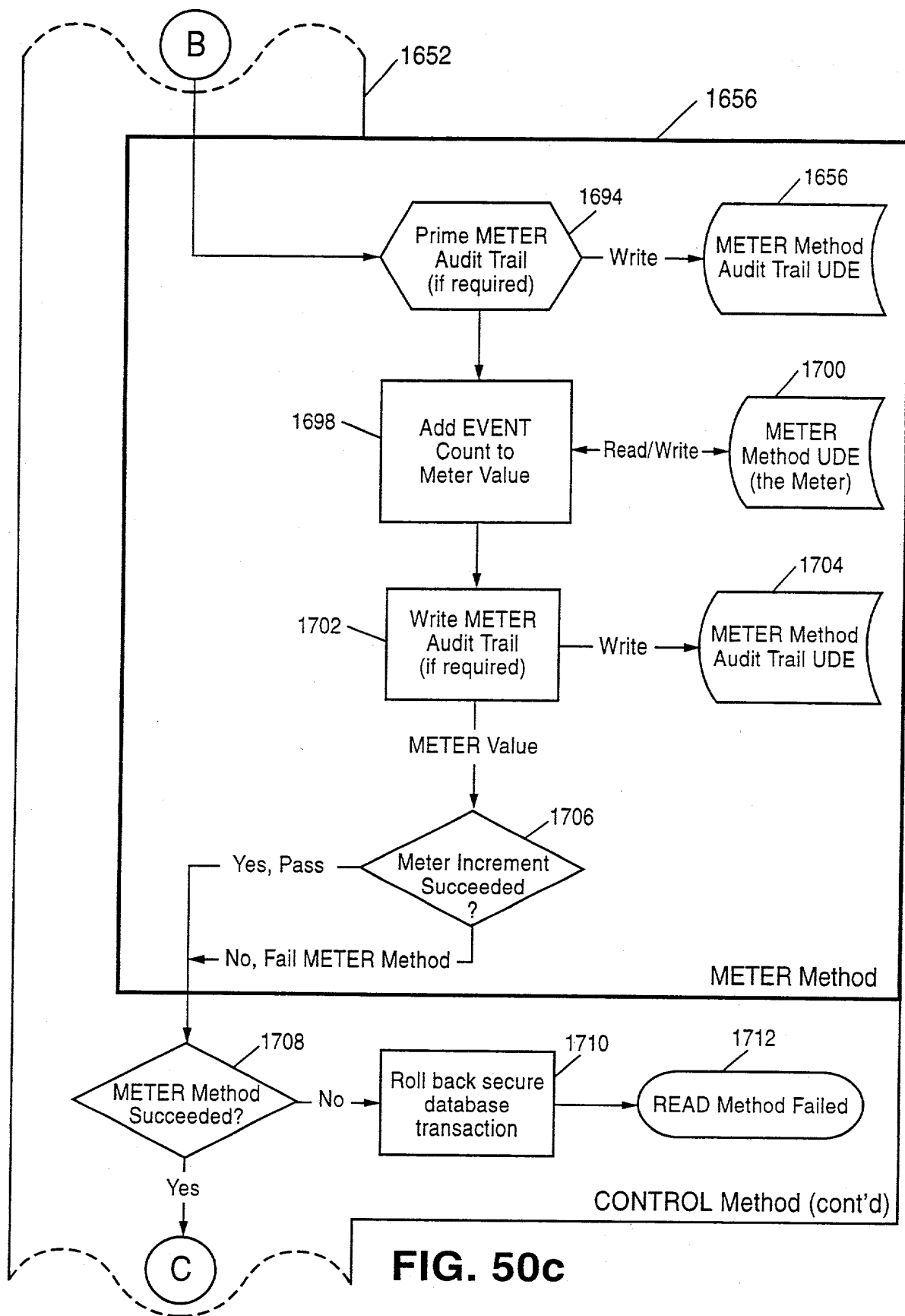
**FIG. 49f**



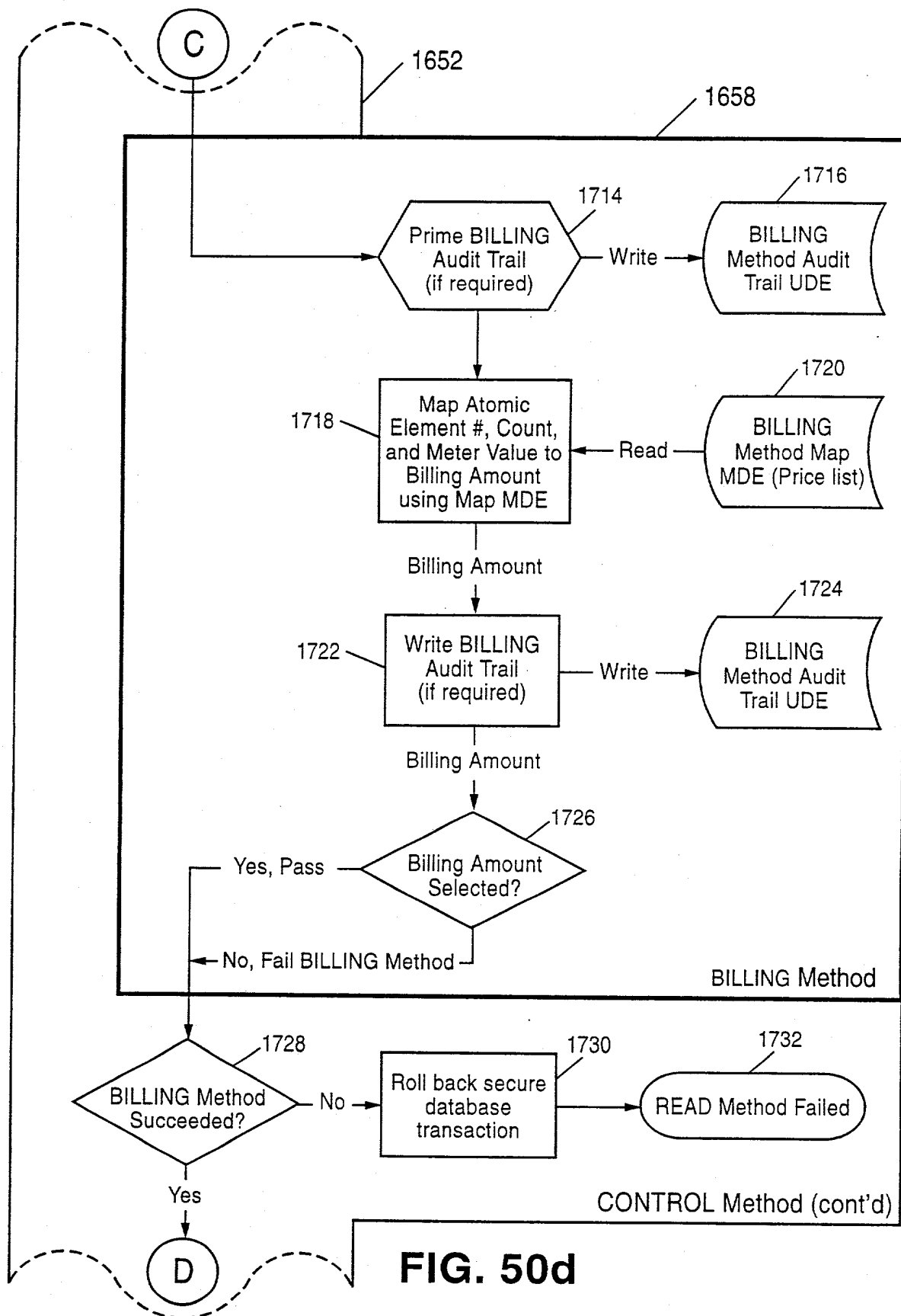


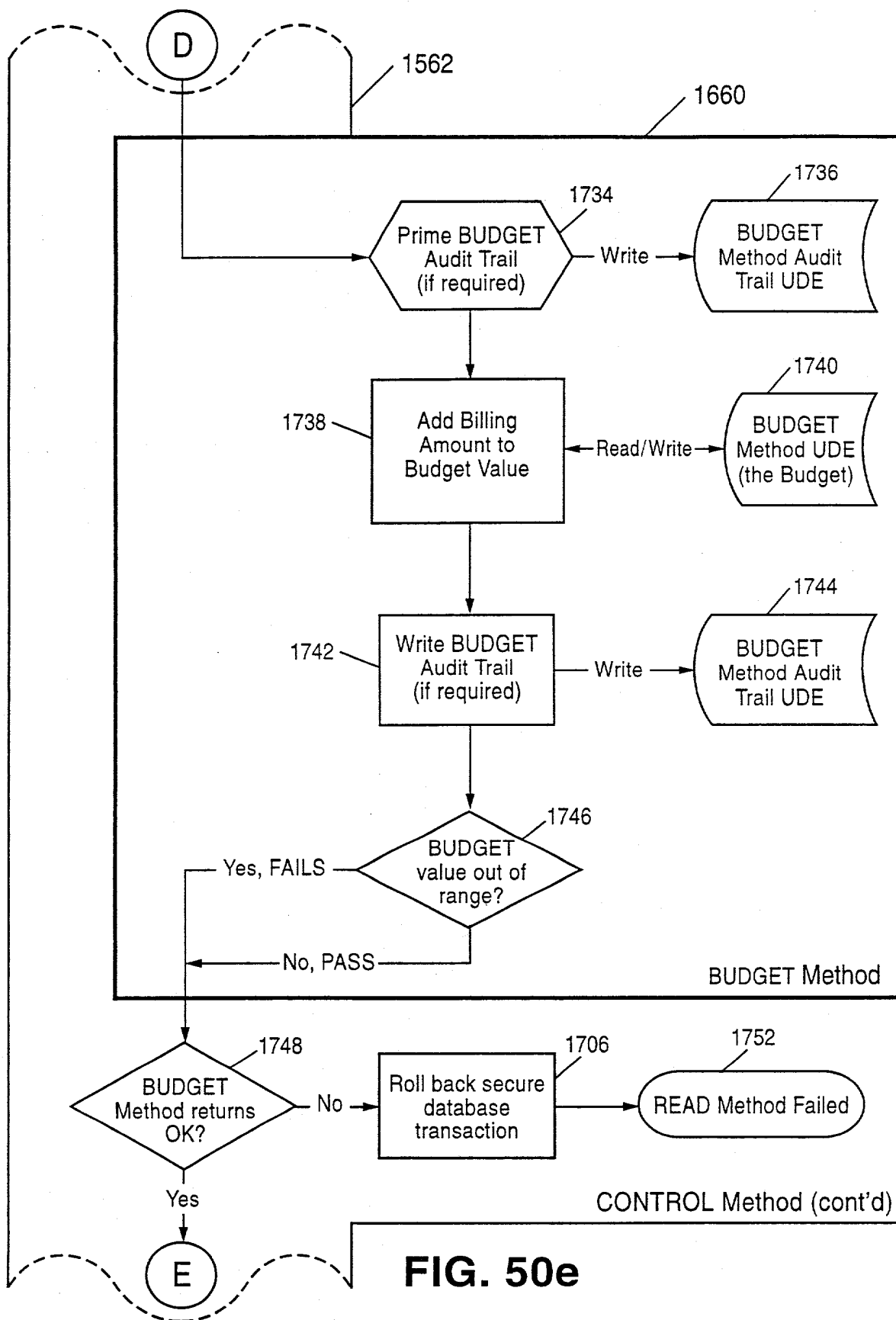






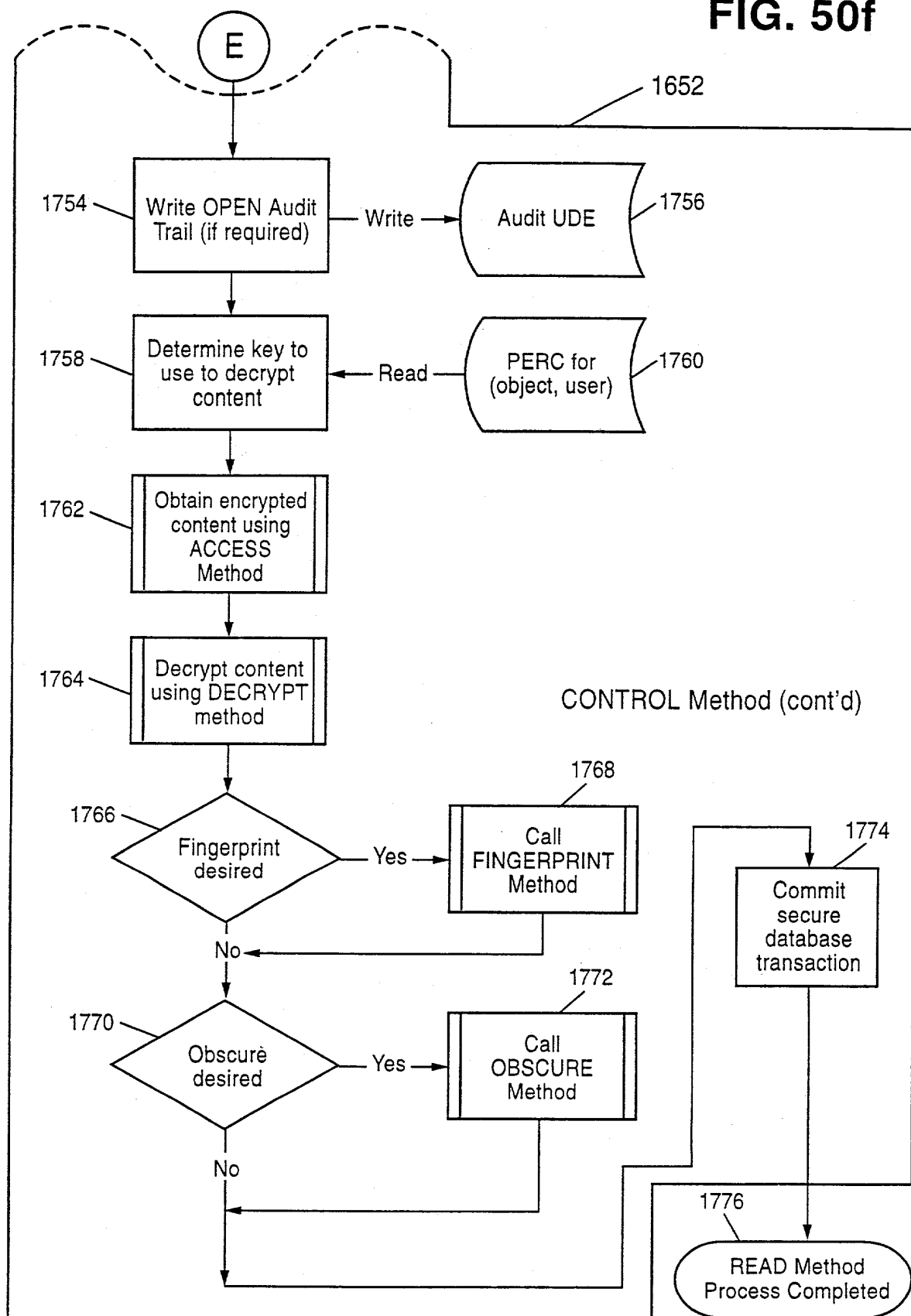
**FIG. 50c**

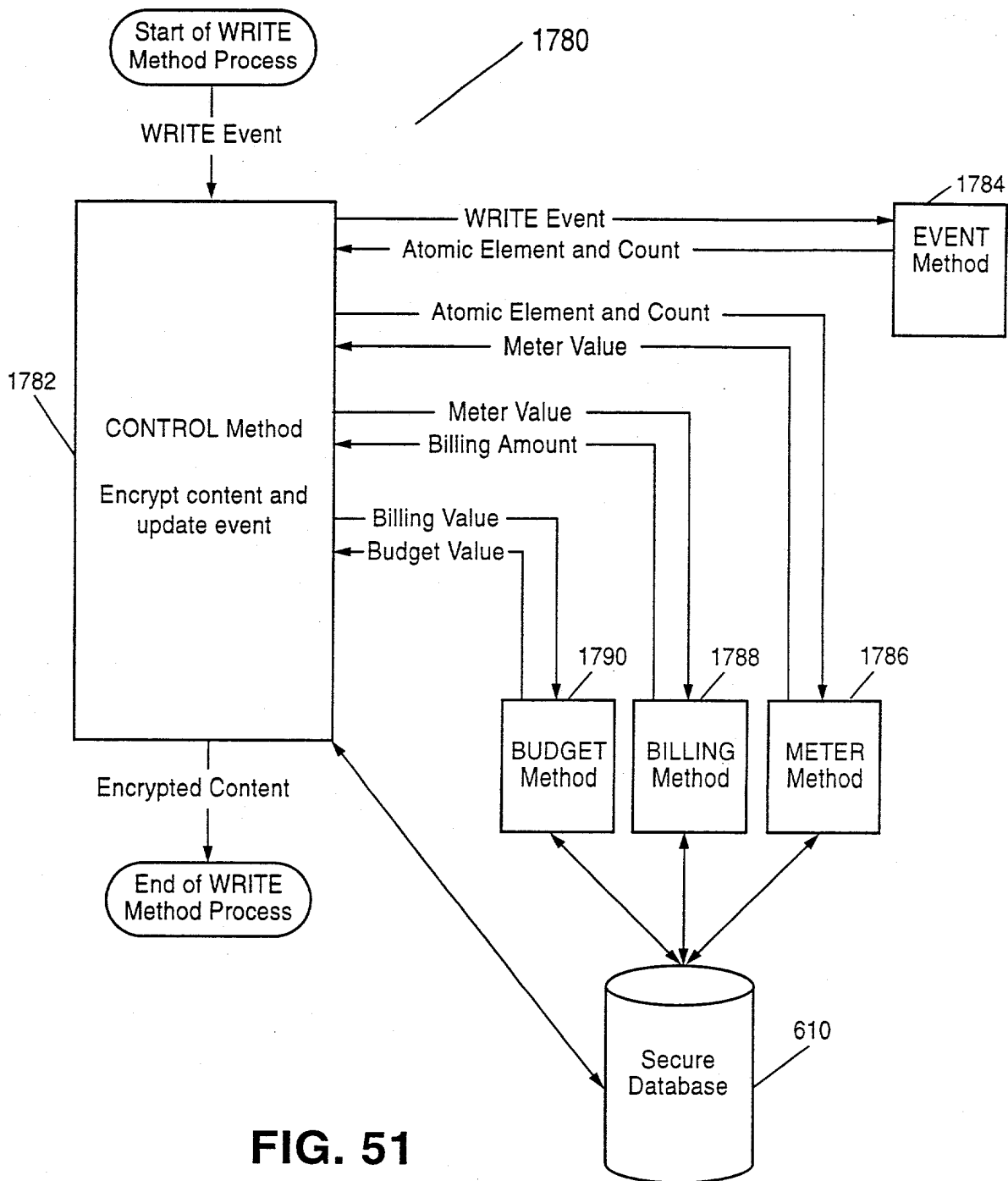


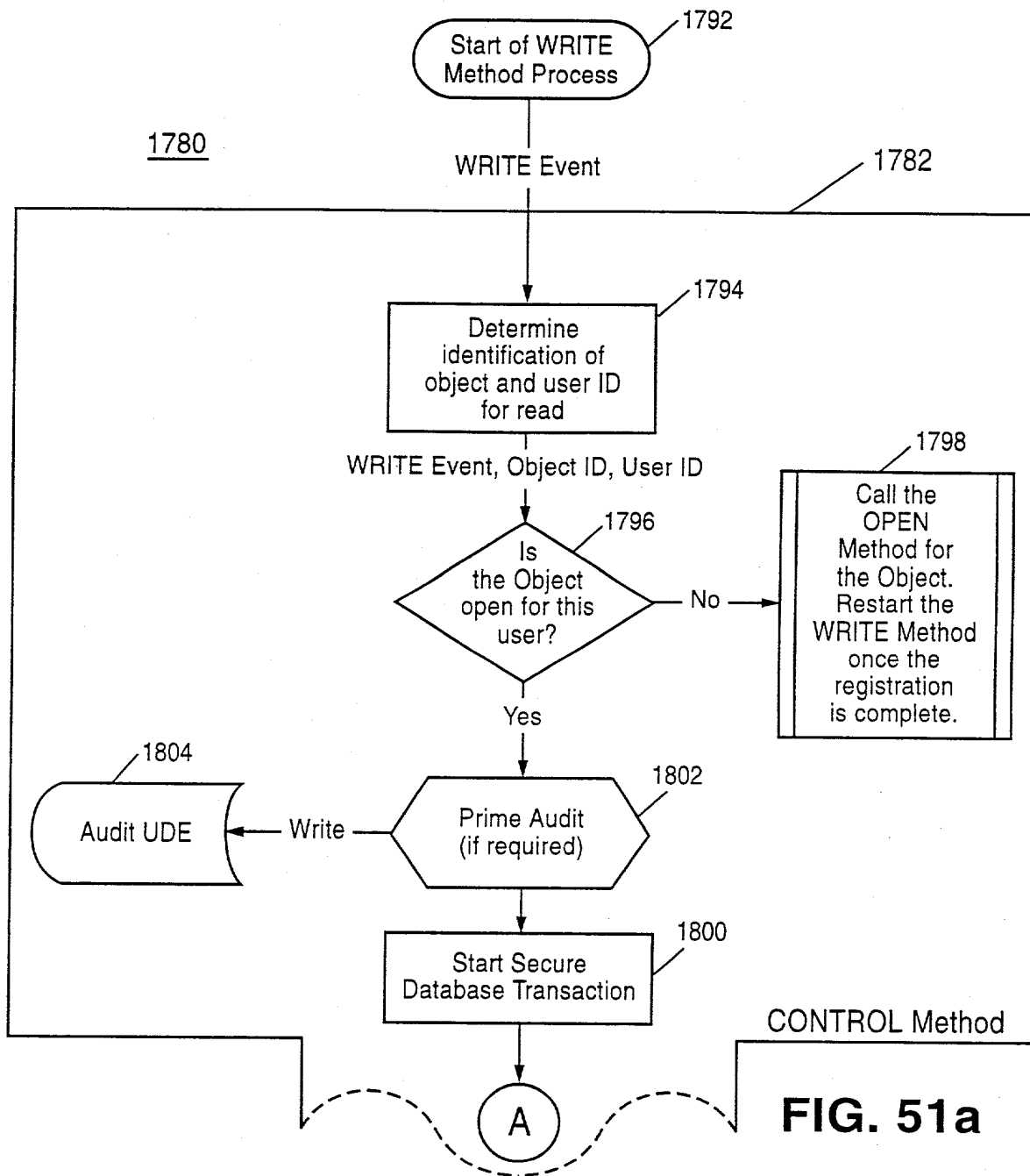


**FIG. 50e**

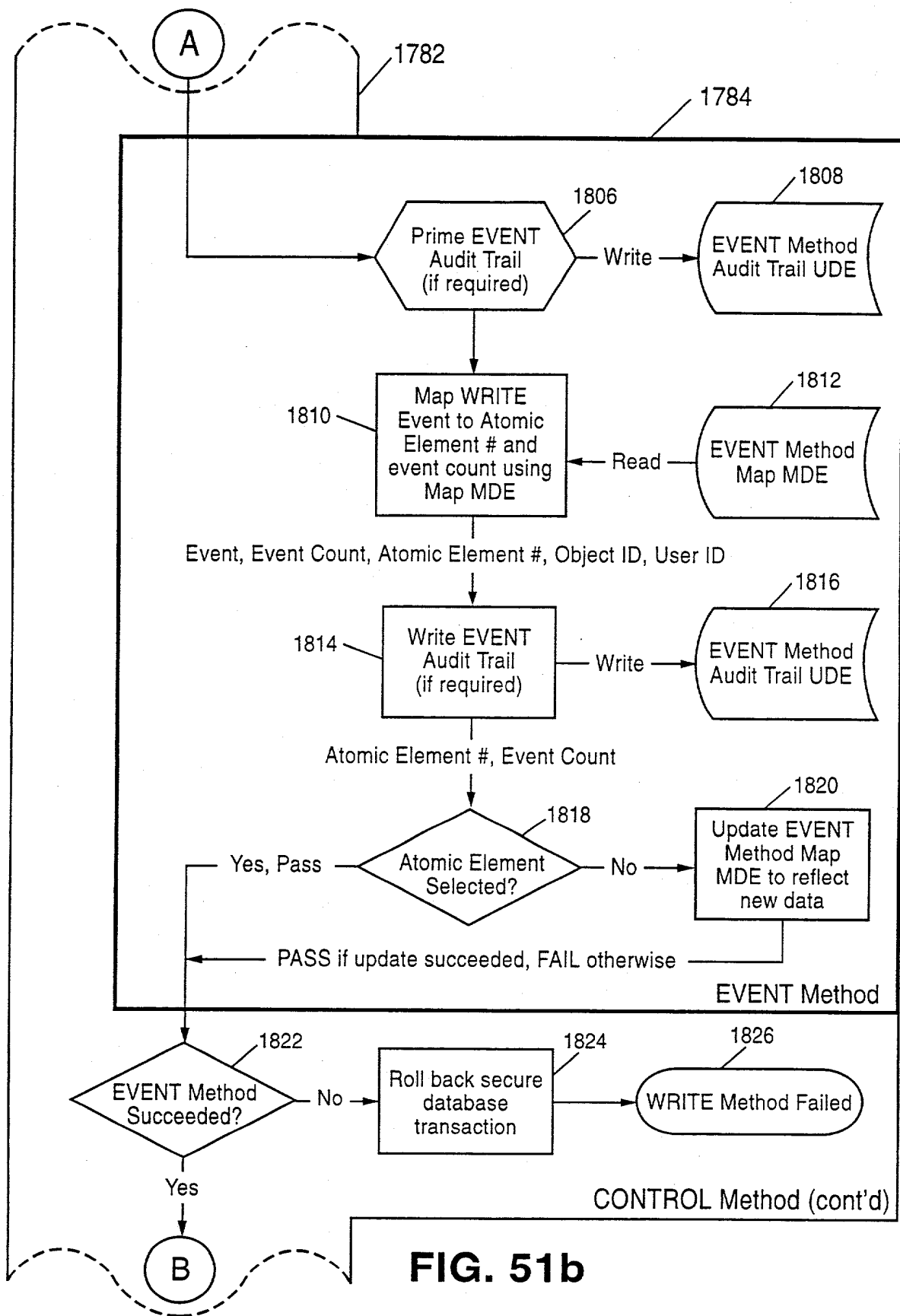
FIG. 50f

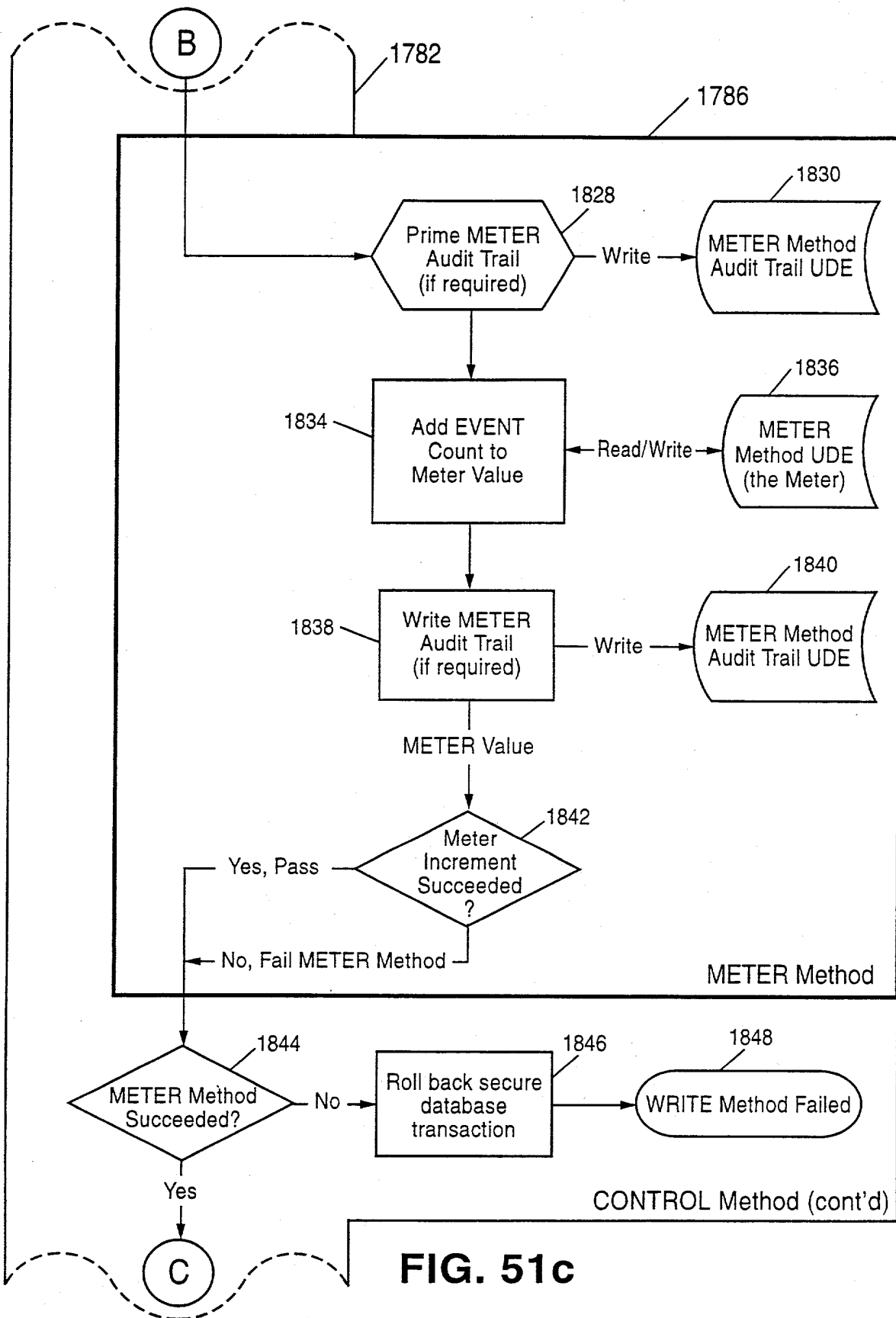






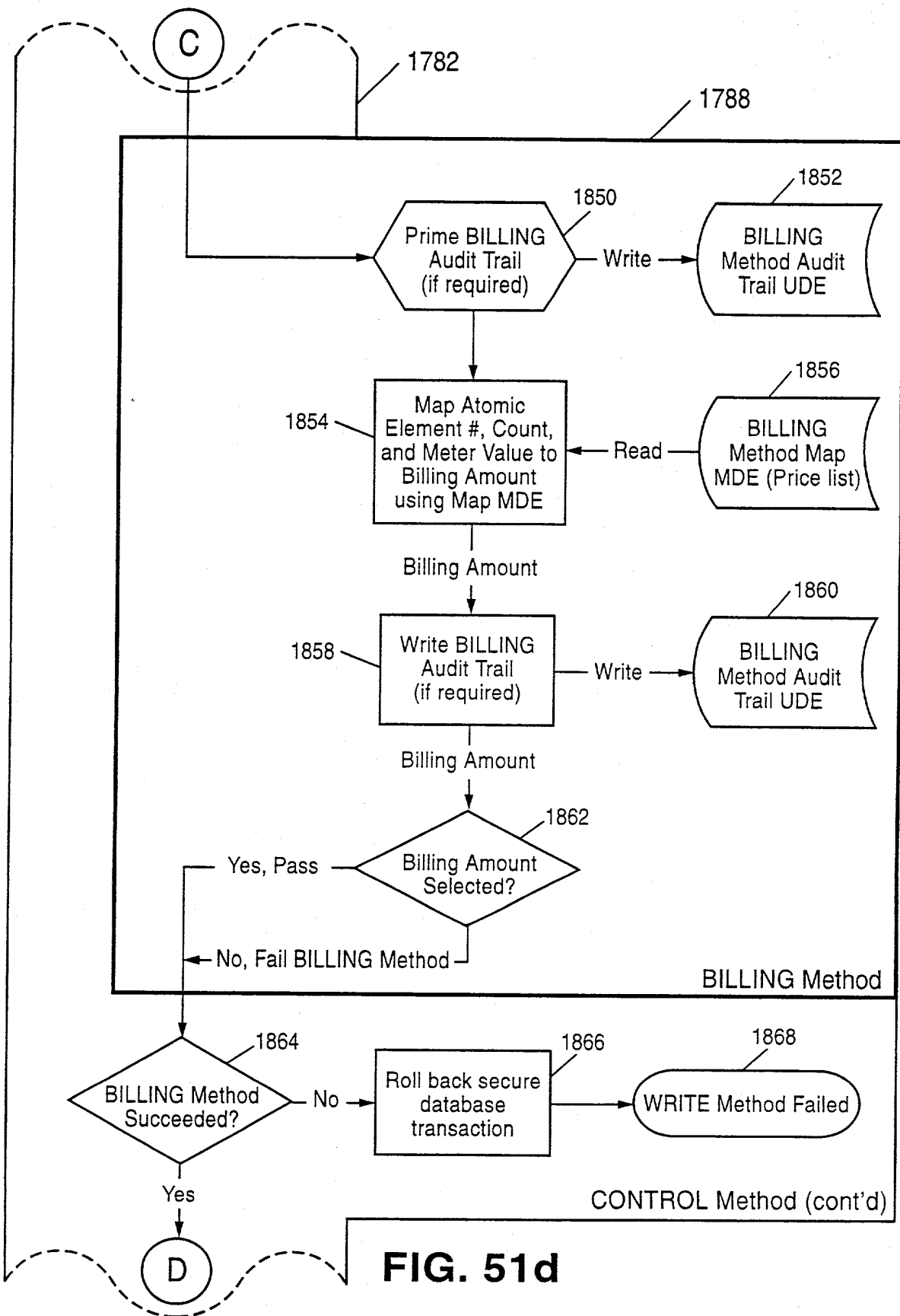
**FIG. 51a**

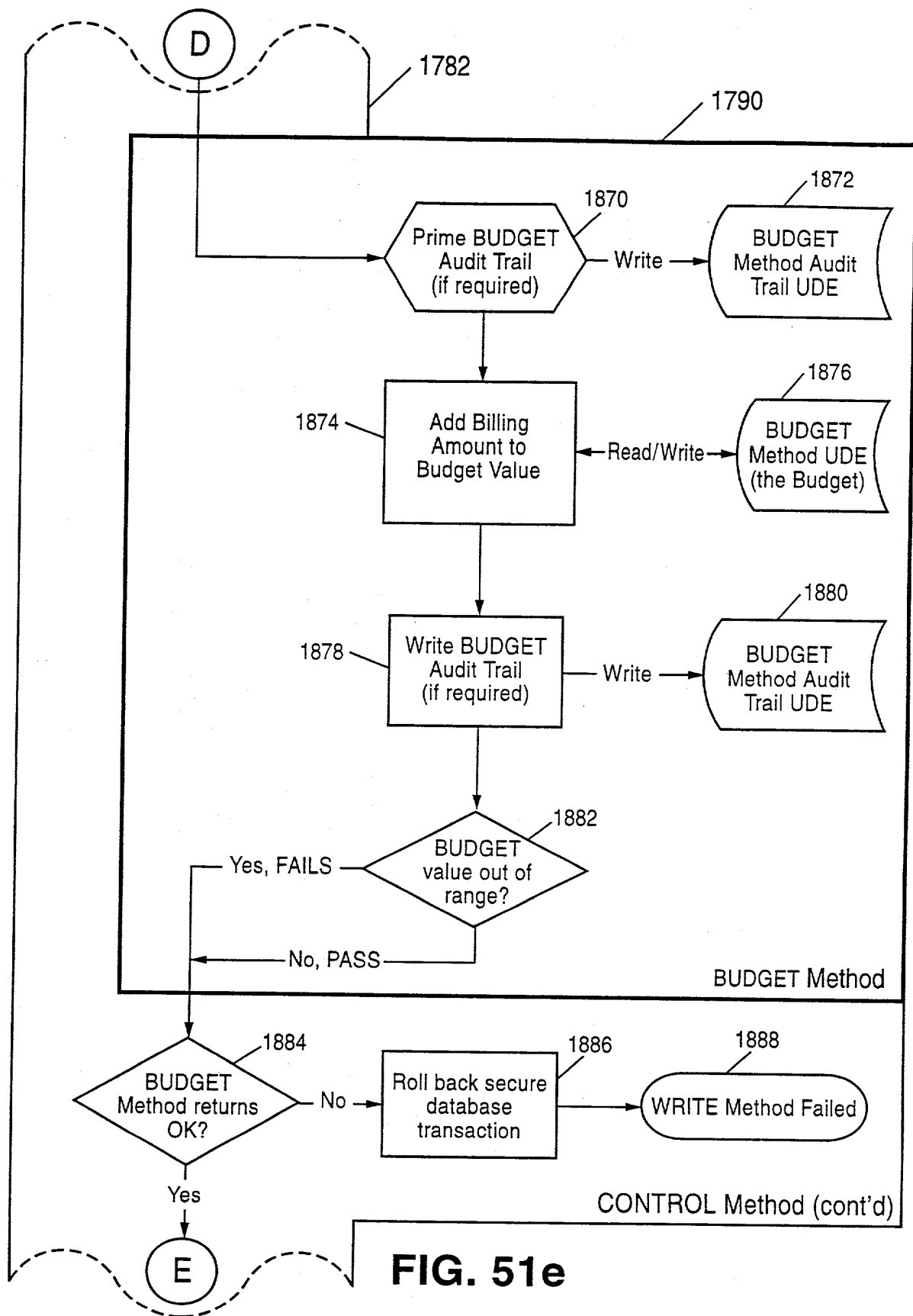




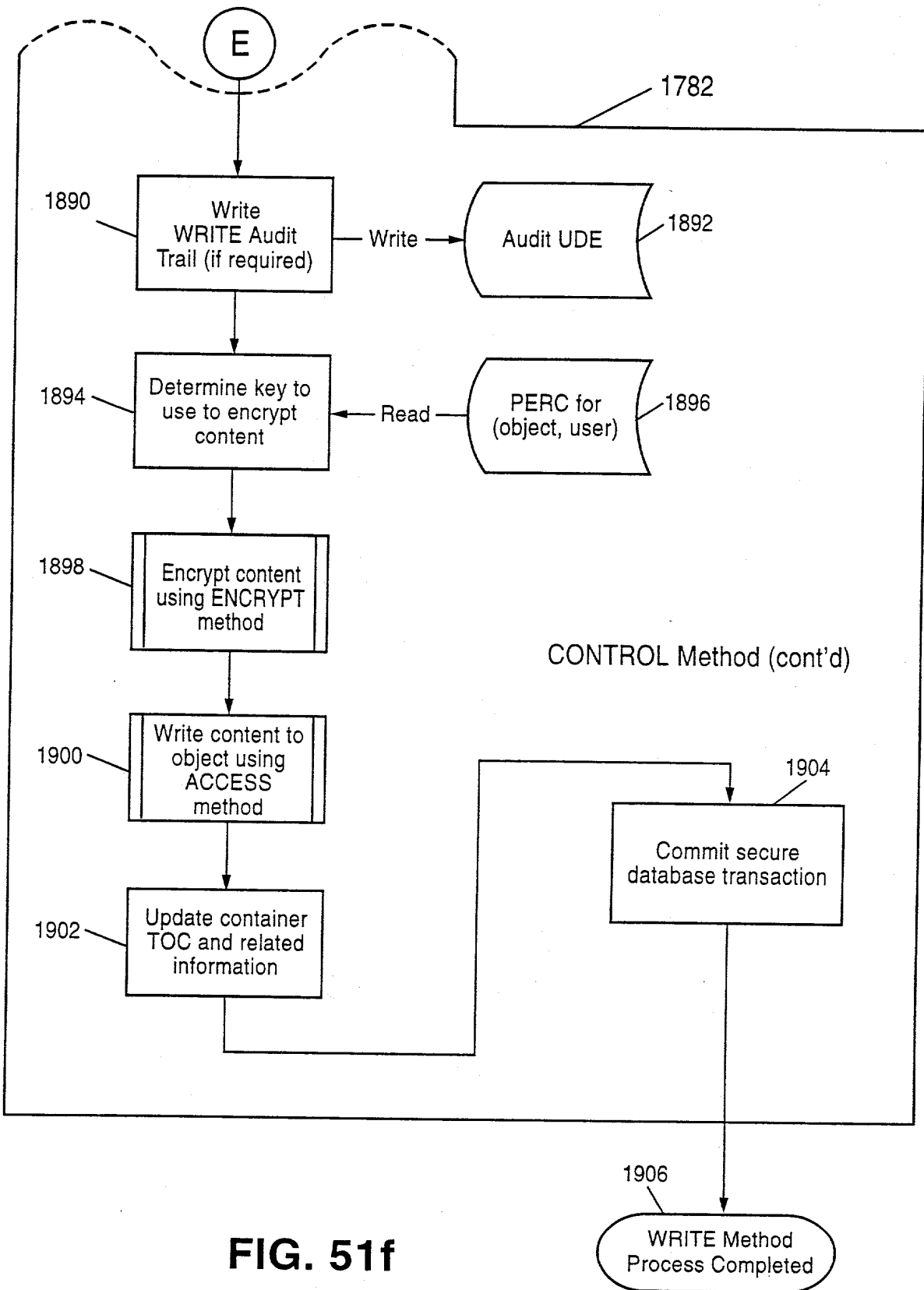
**FIG. 51c**

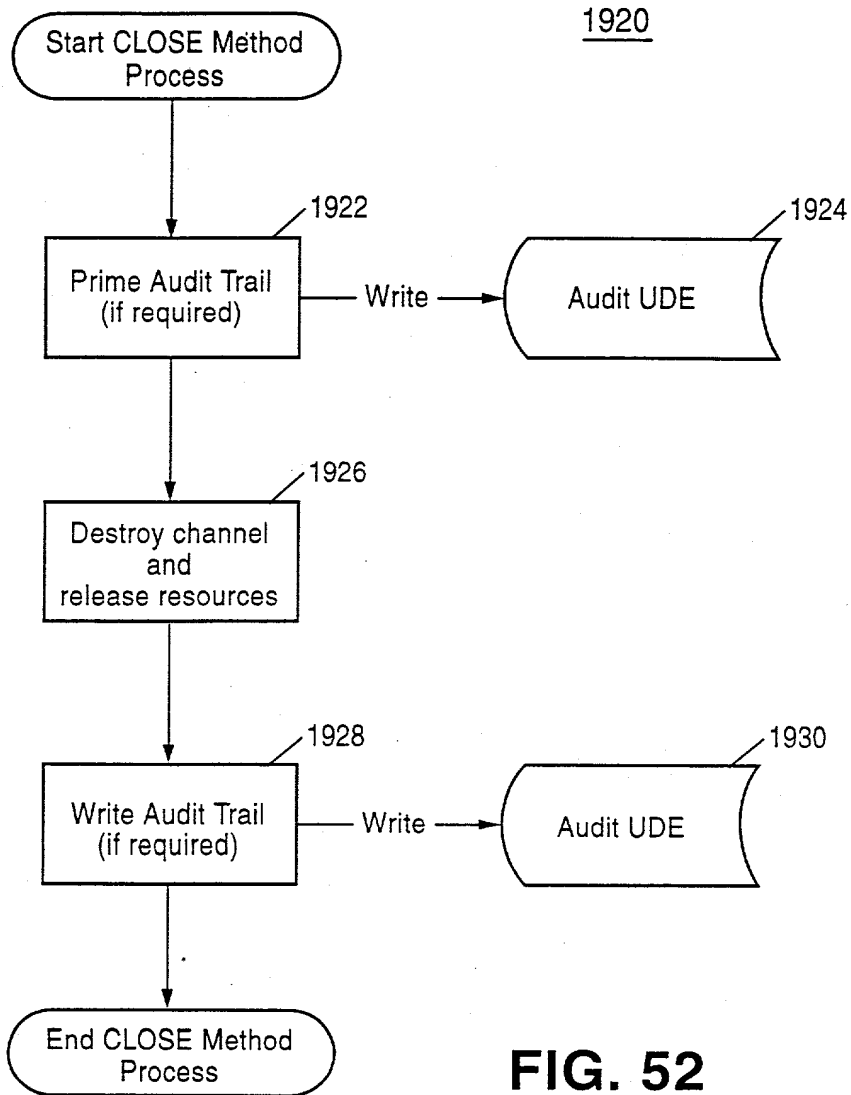




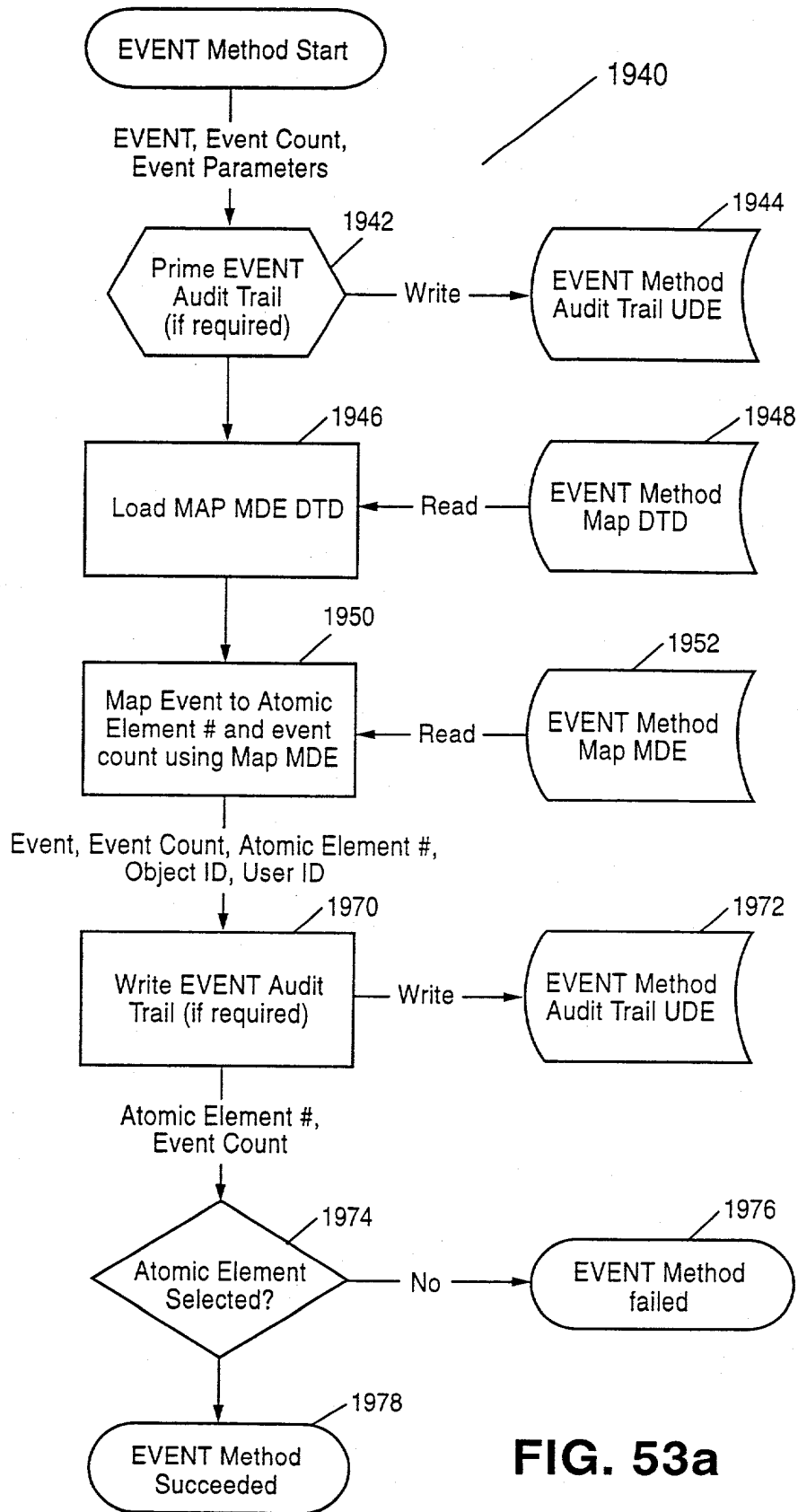


**FIG. 51e**

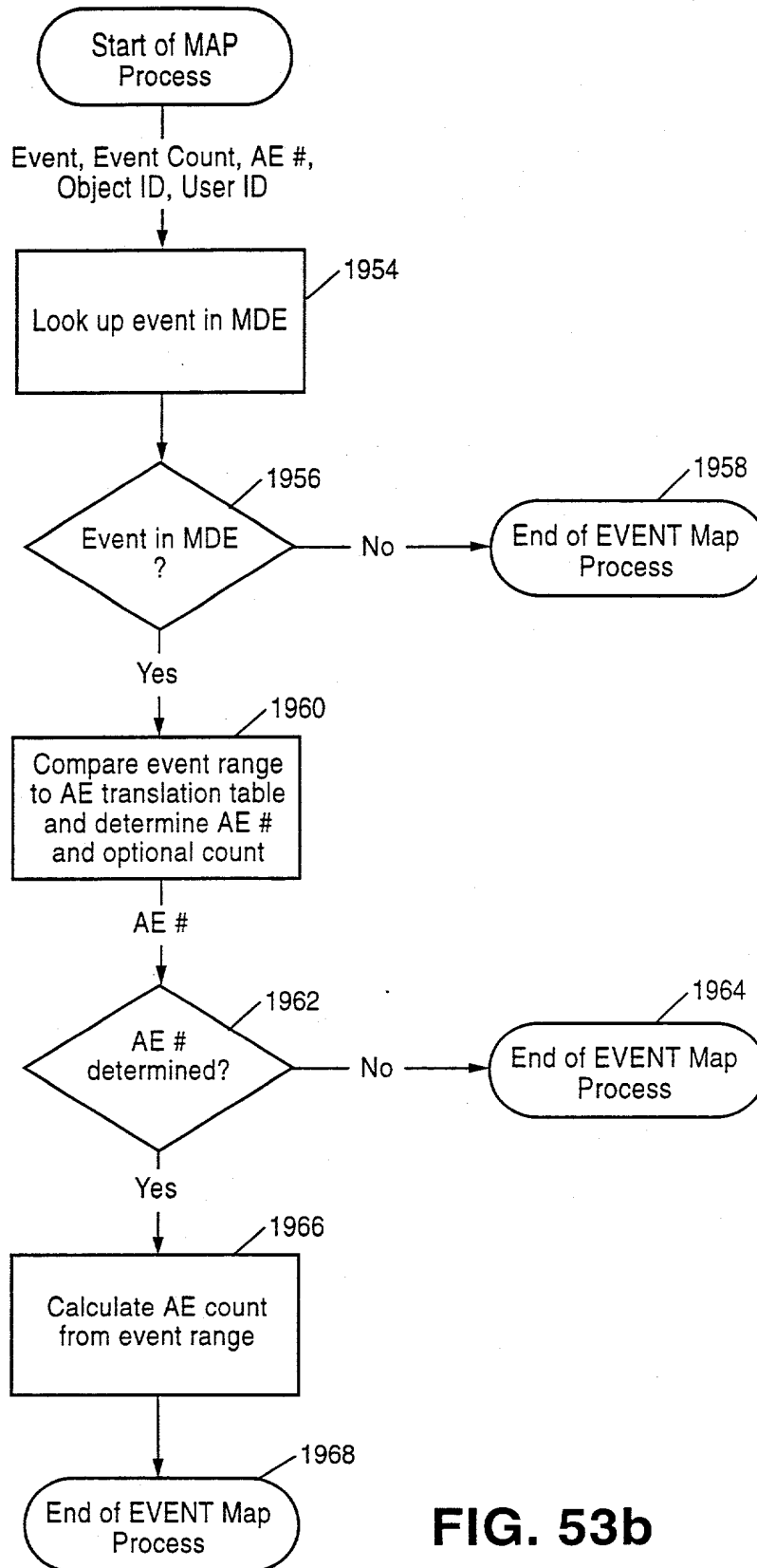




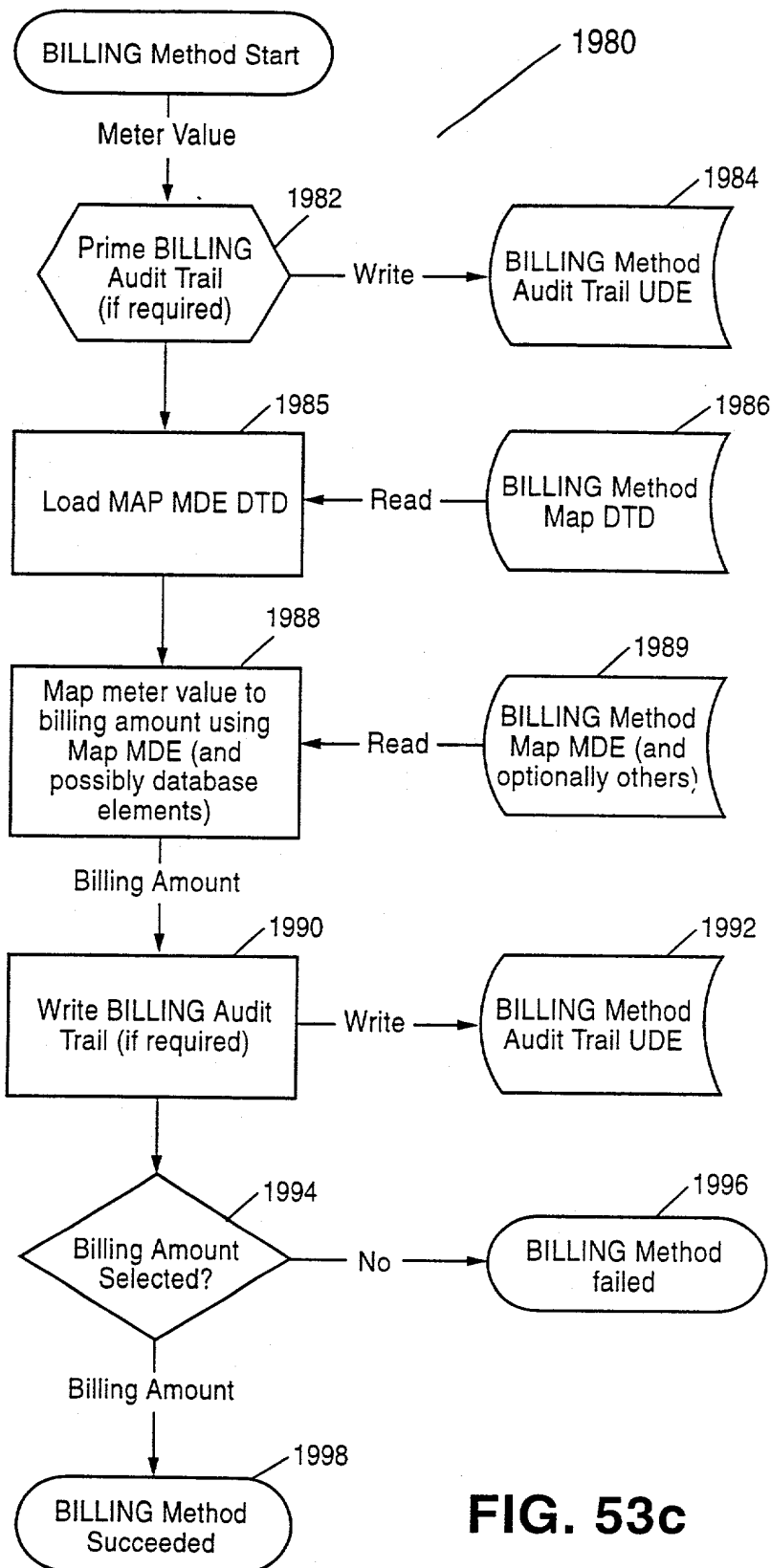
**FIG. 52**



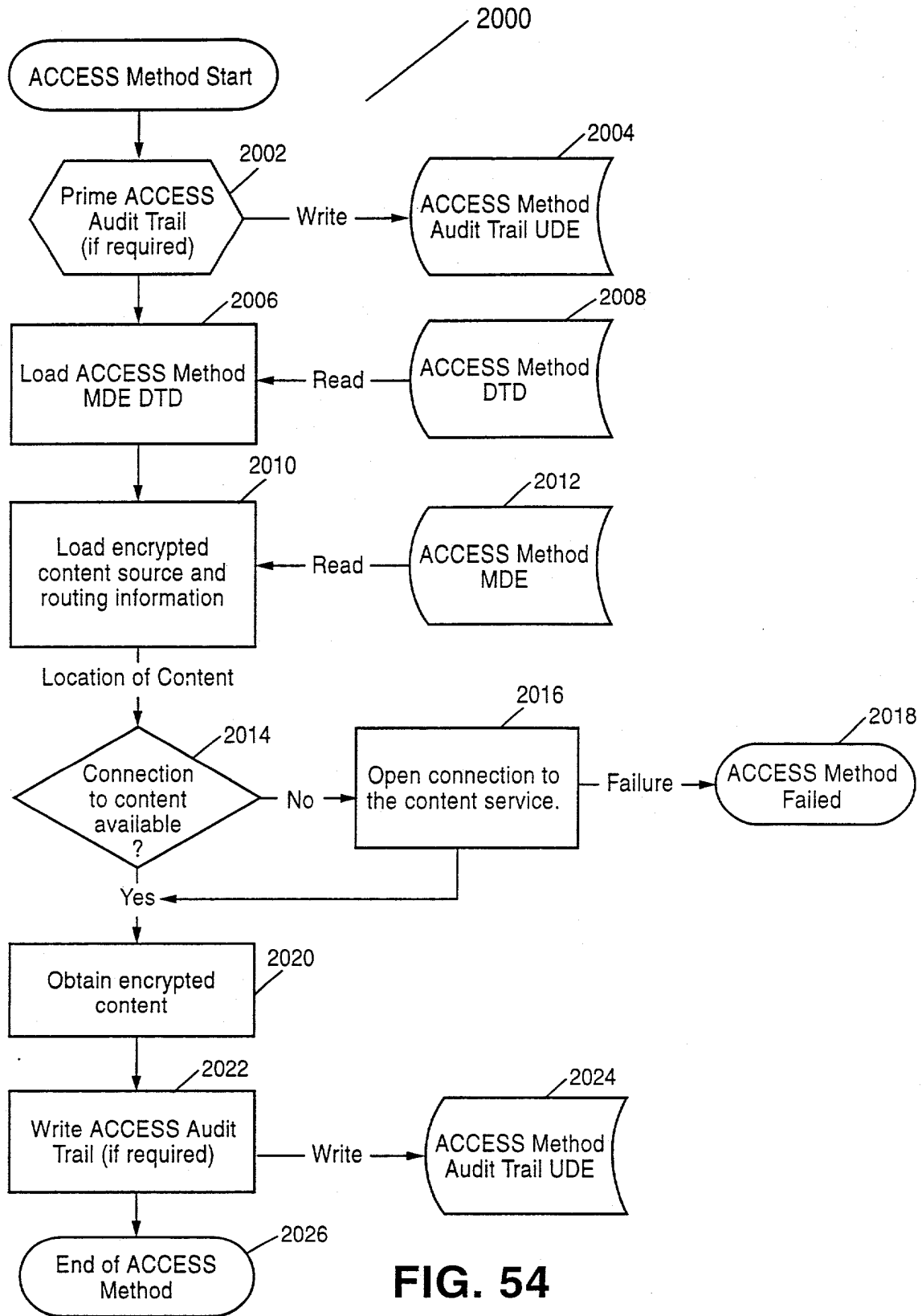
**FIG. 53a**



**FIG. 53b**

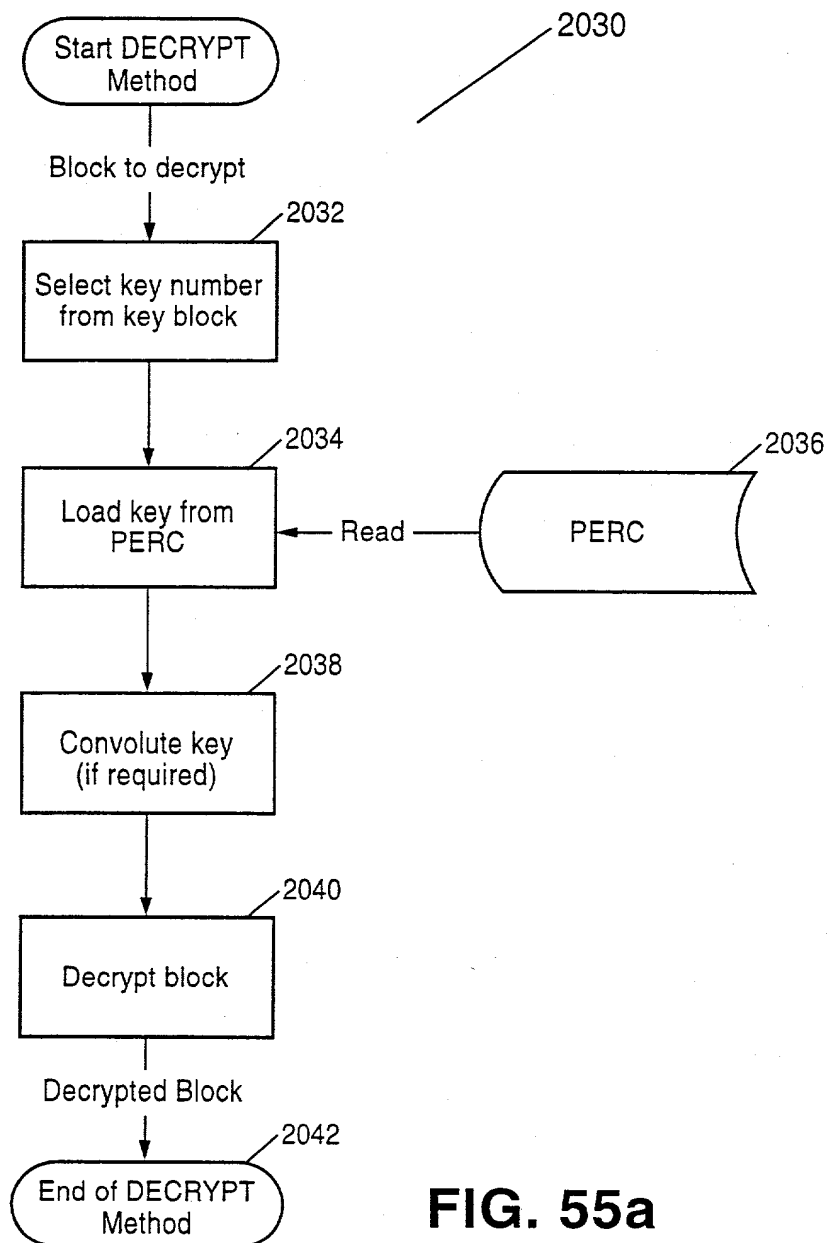


**FIG. 53c**

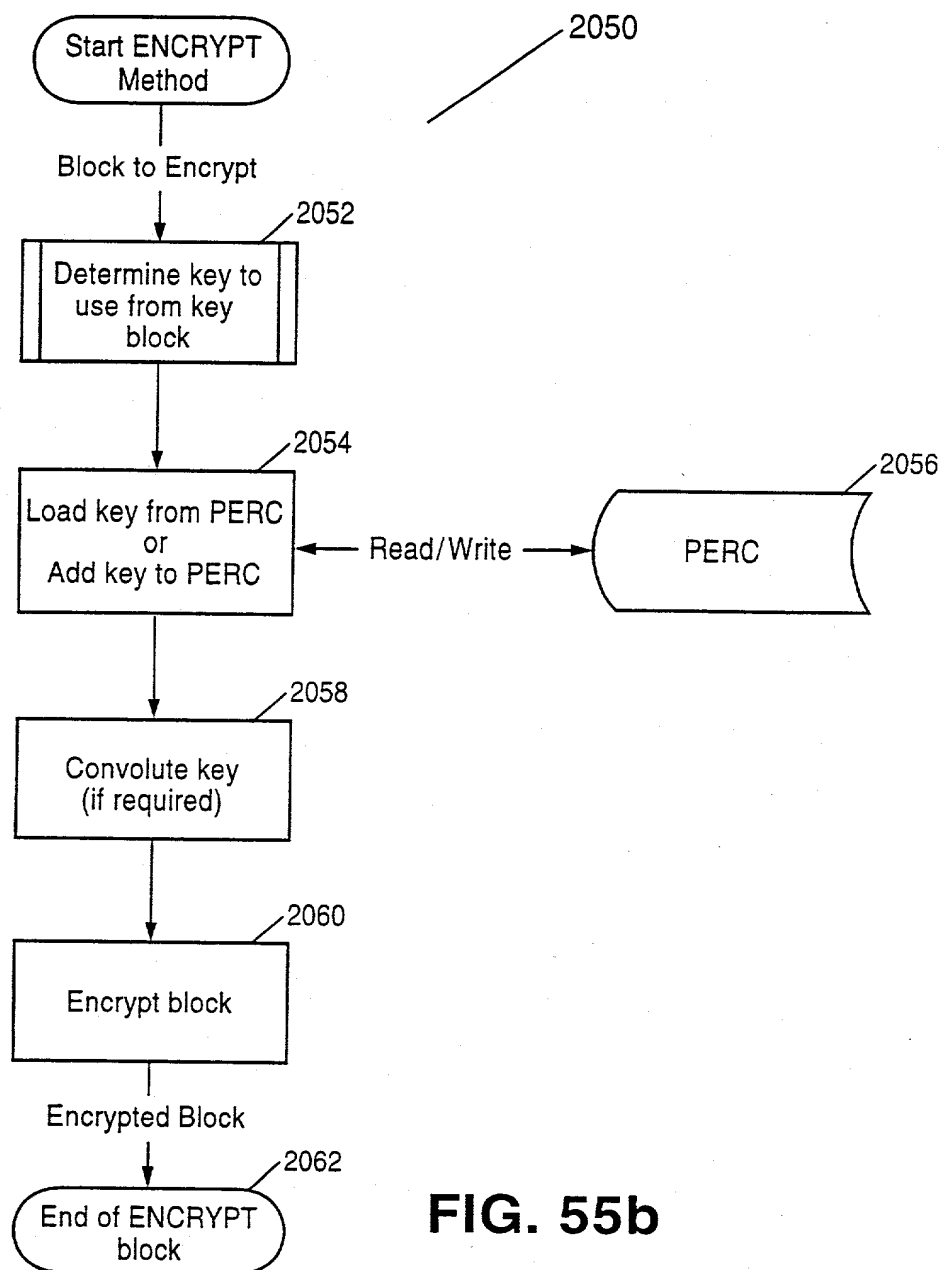


**FIG. 54**

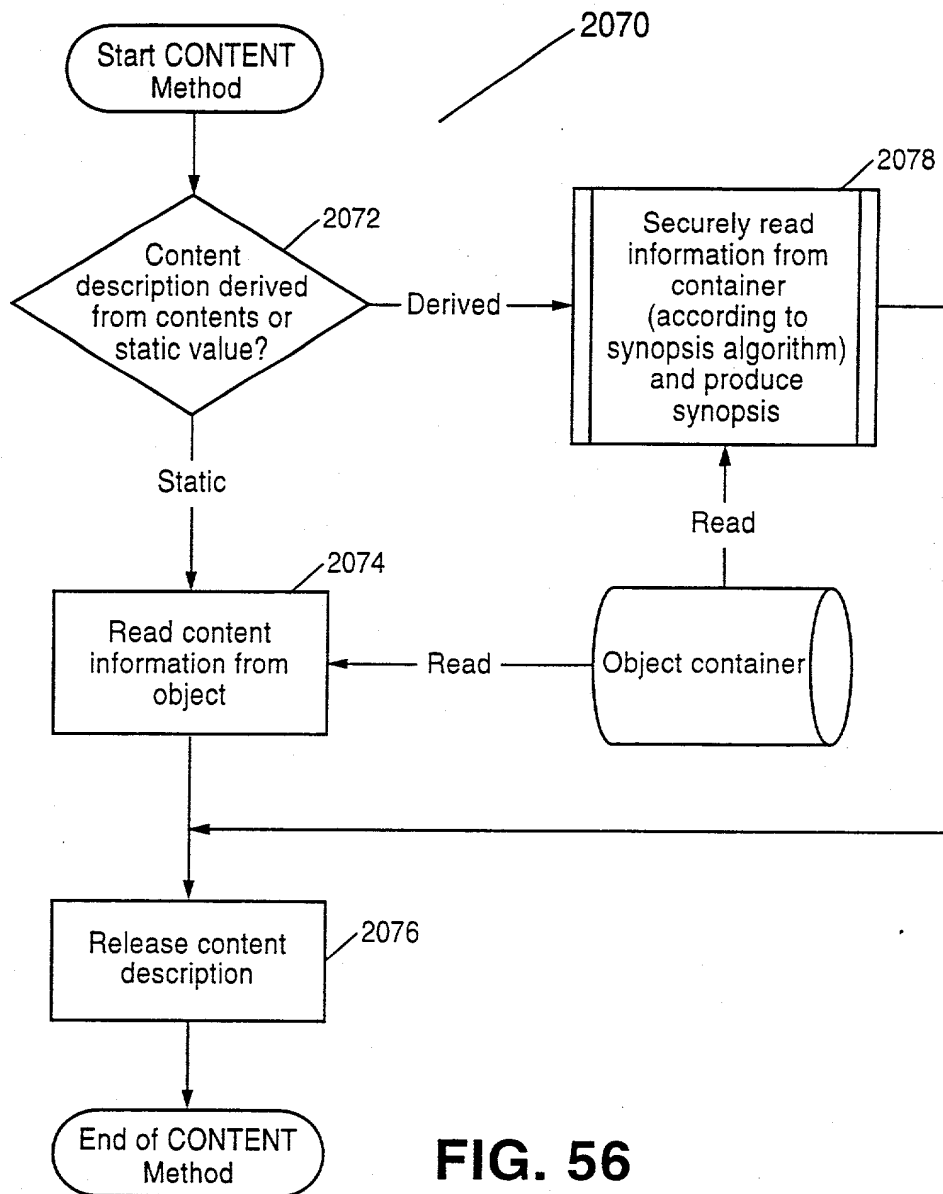




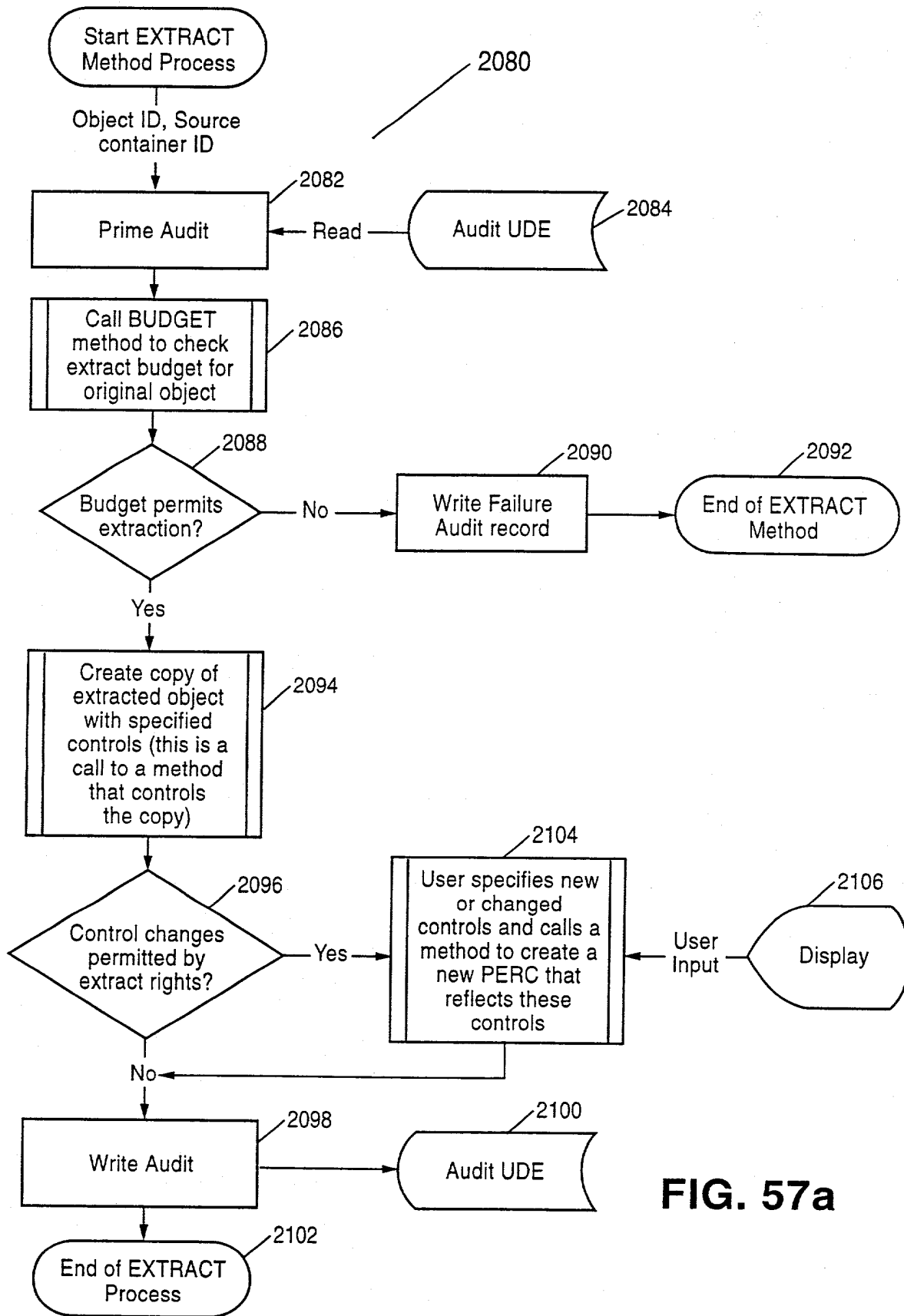
**FIG. 55a**



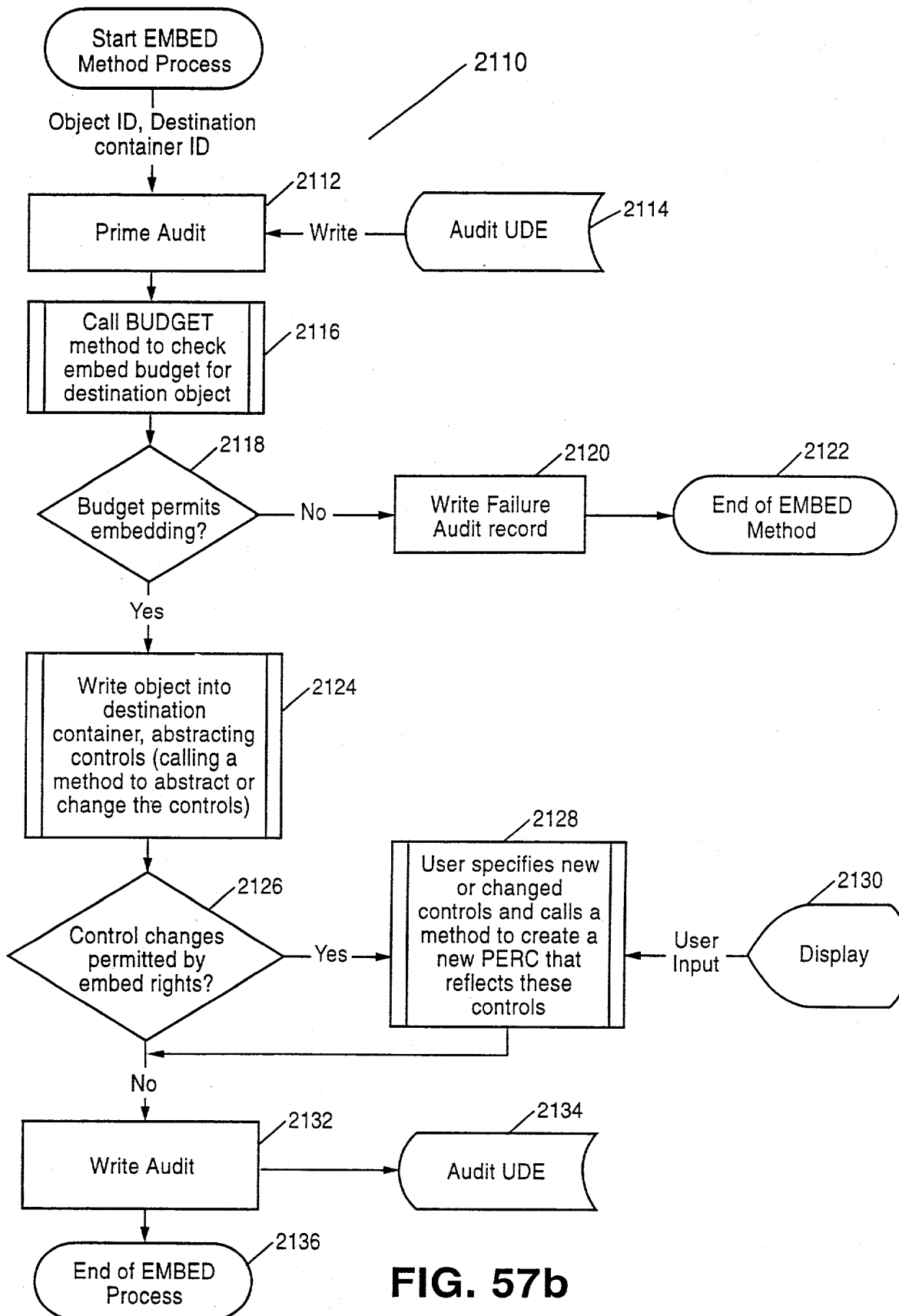
**FIG. 55b**



**FIG. 56**



**FIG. 57a**



**FIG. 57b**

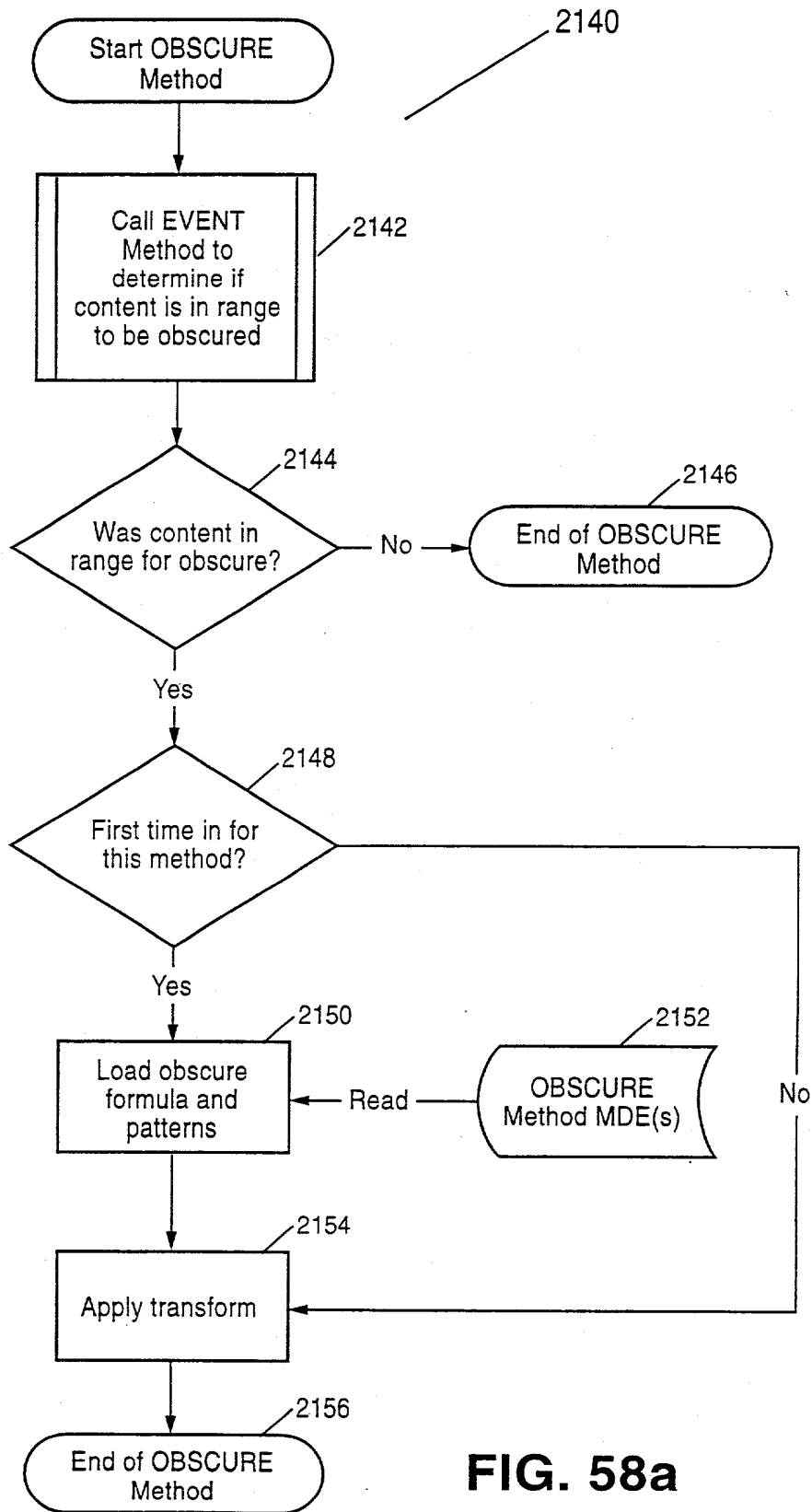
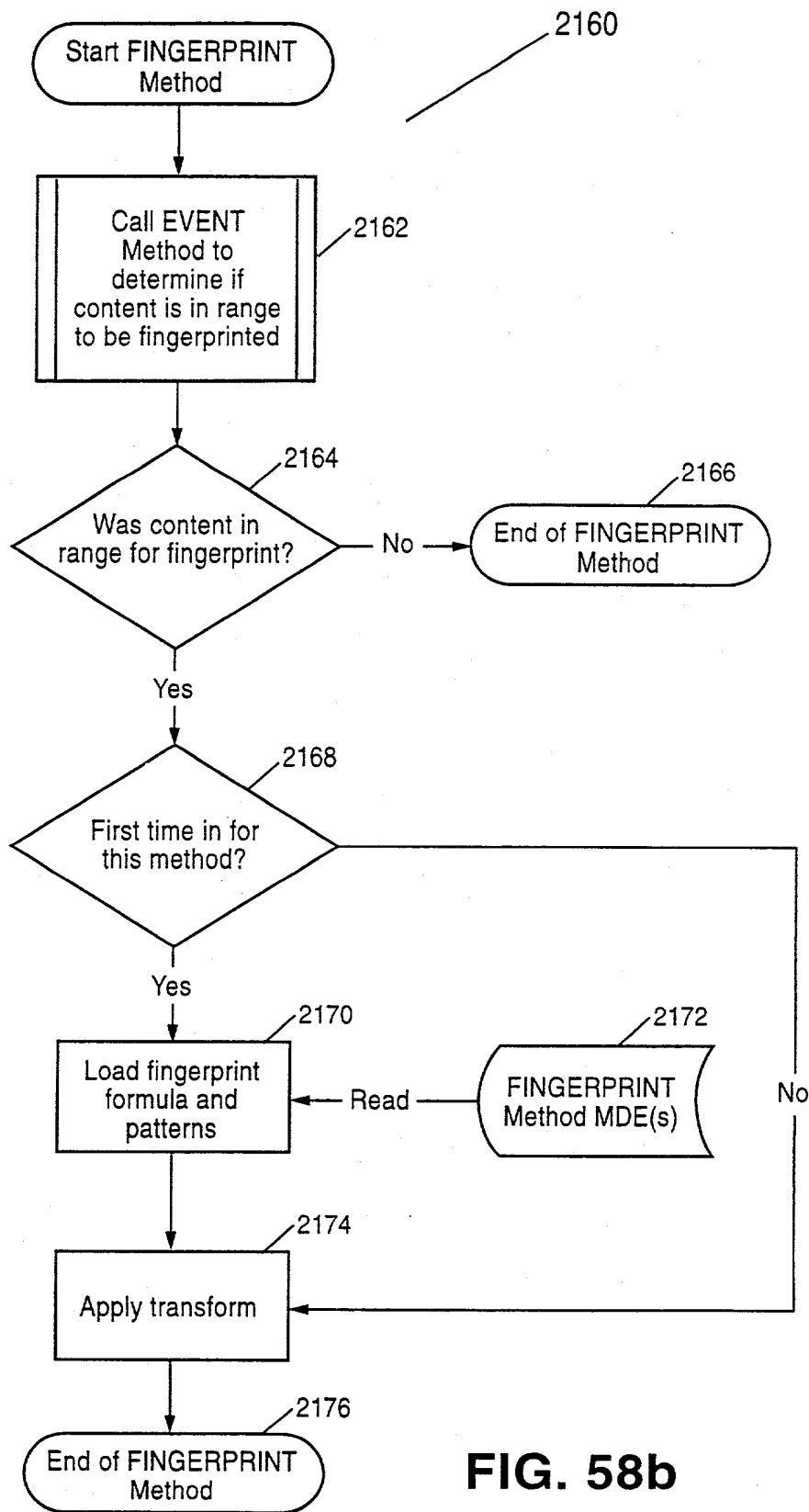


FIG. 58a



**FIG. 58b**

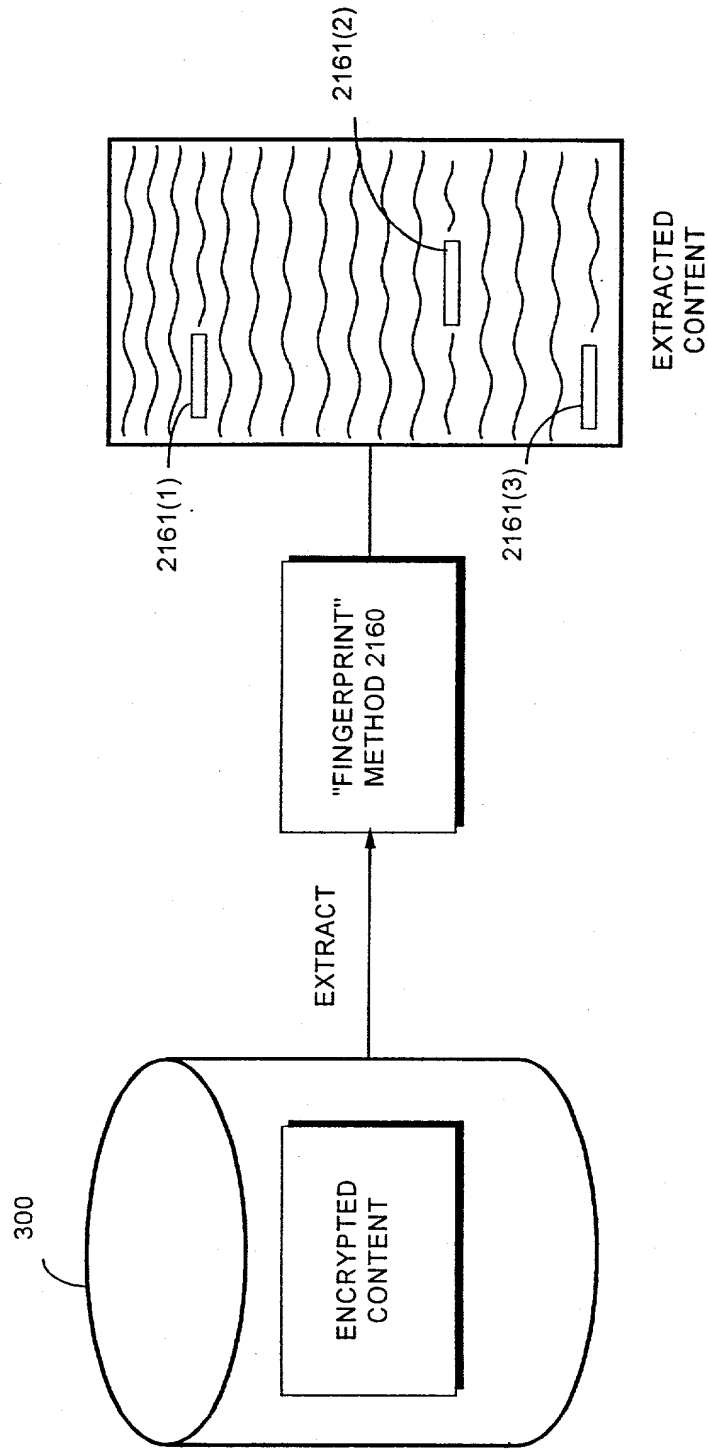
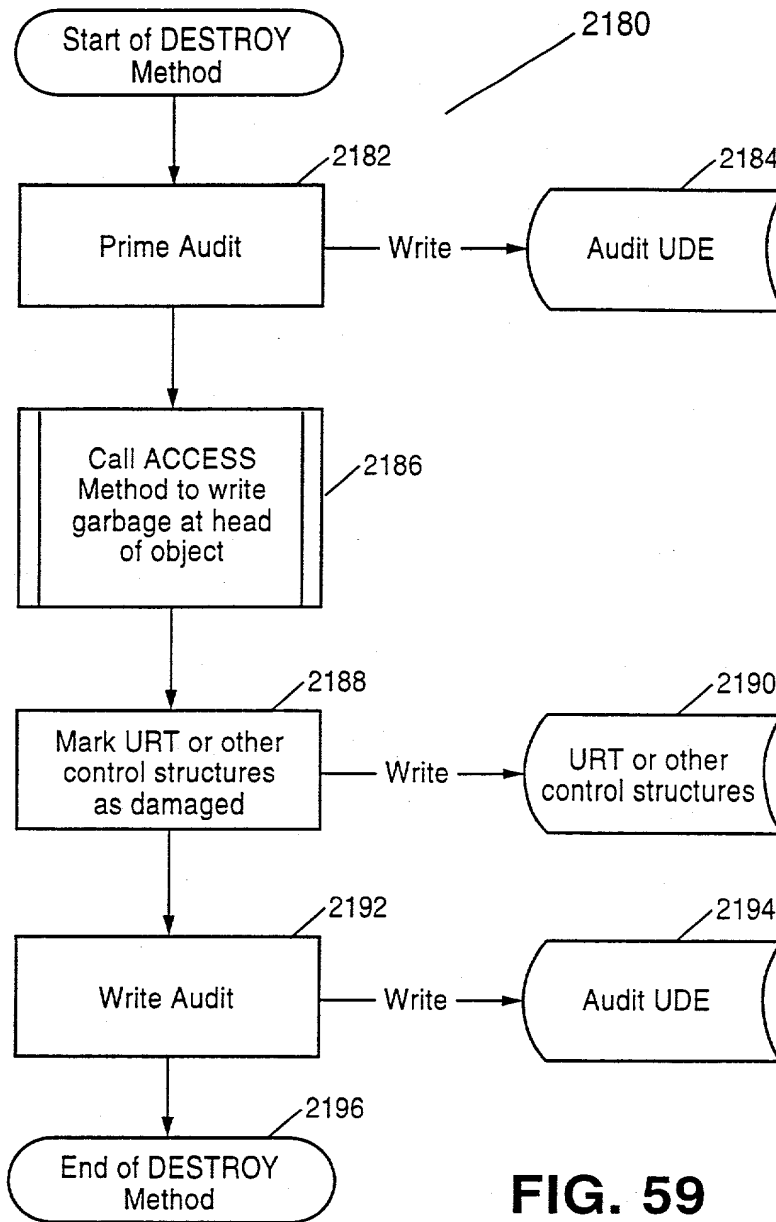
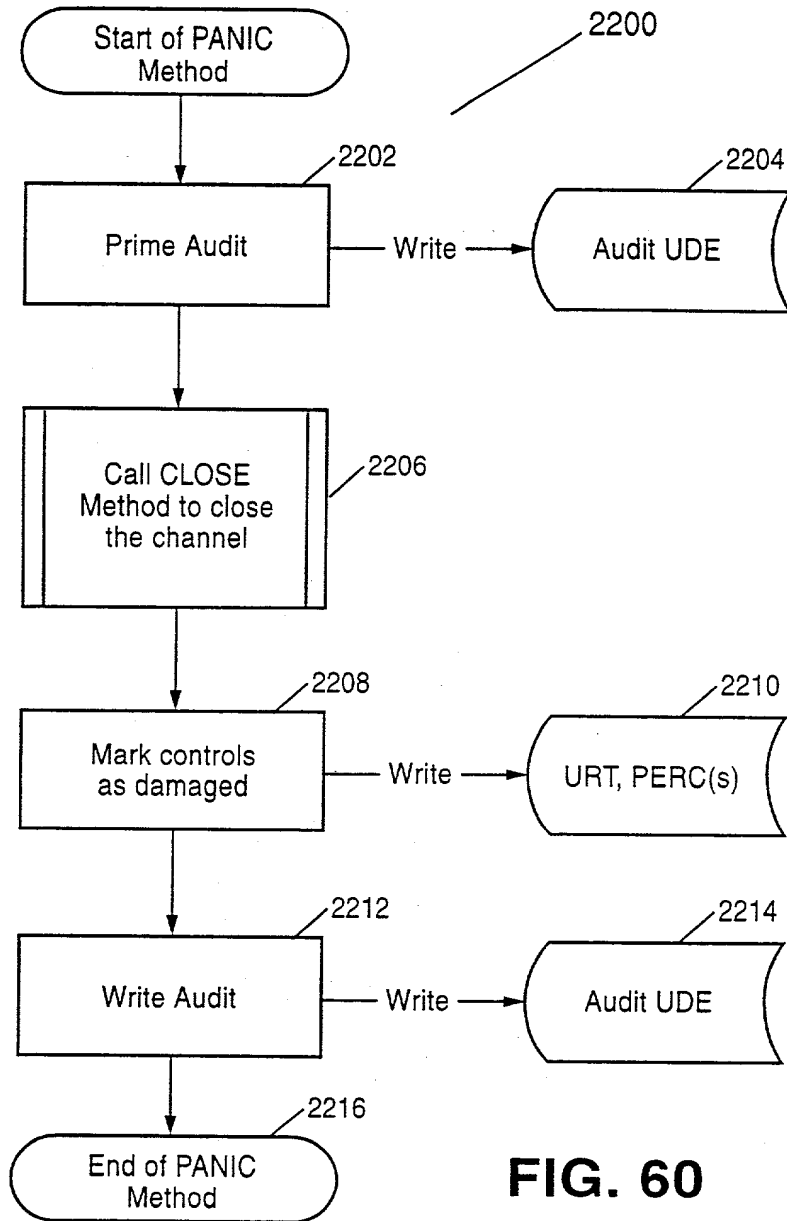


FIG. 58C

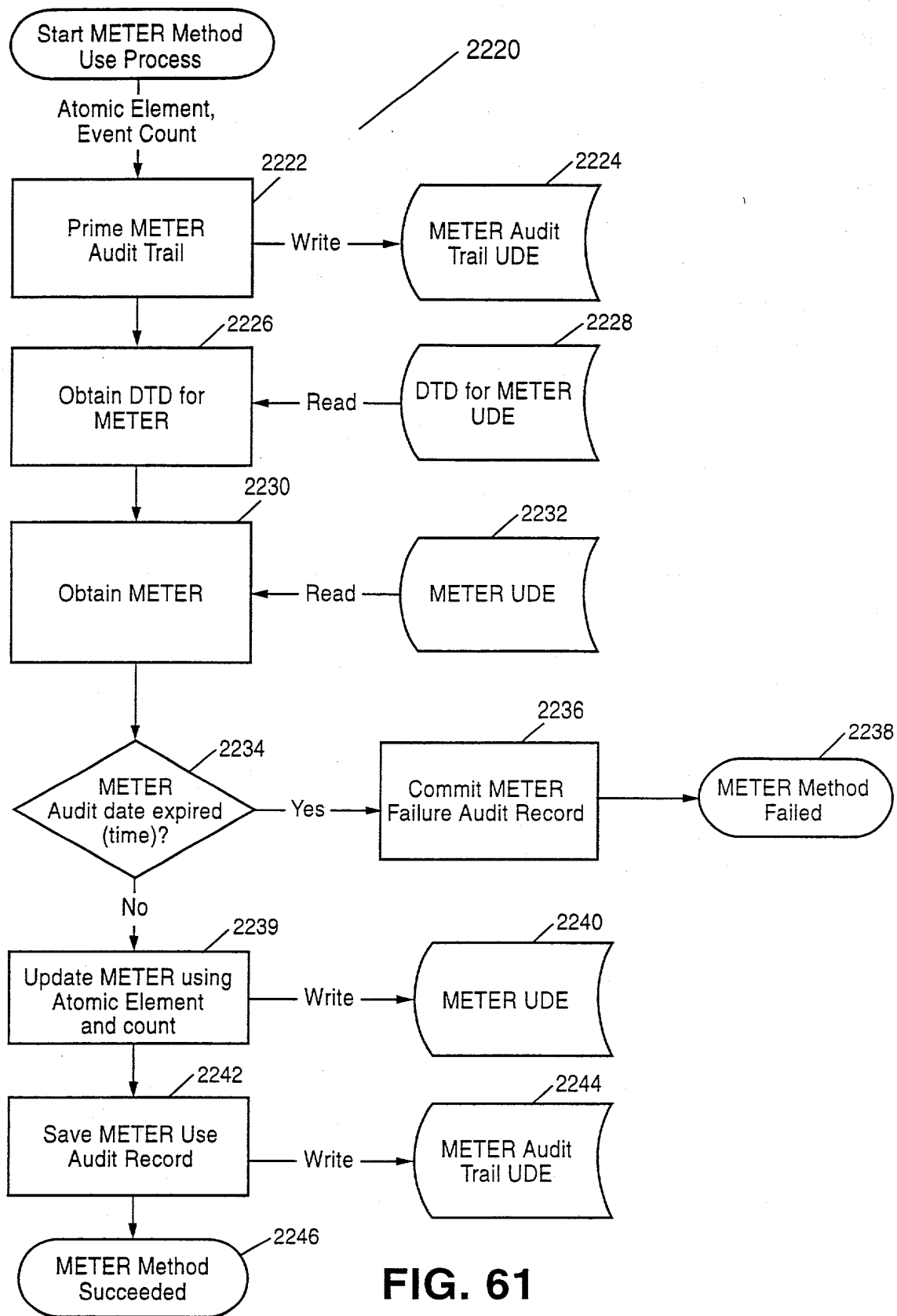




**FIG. 59**

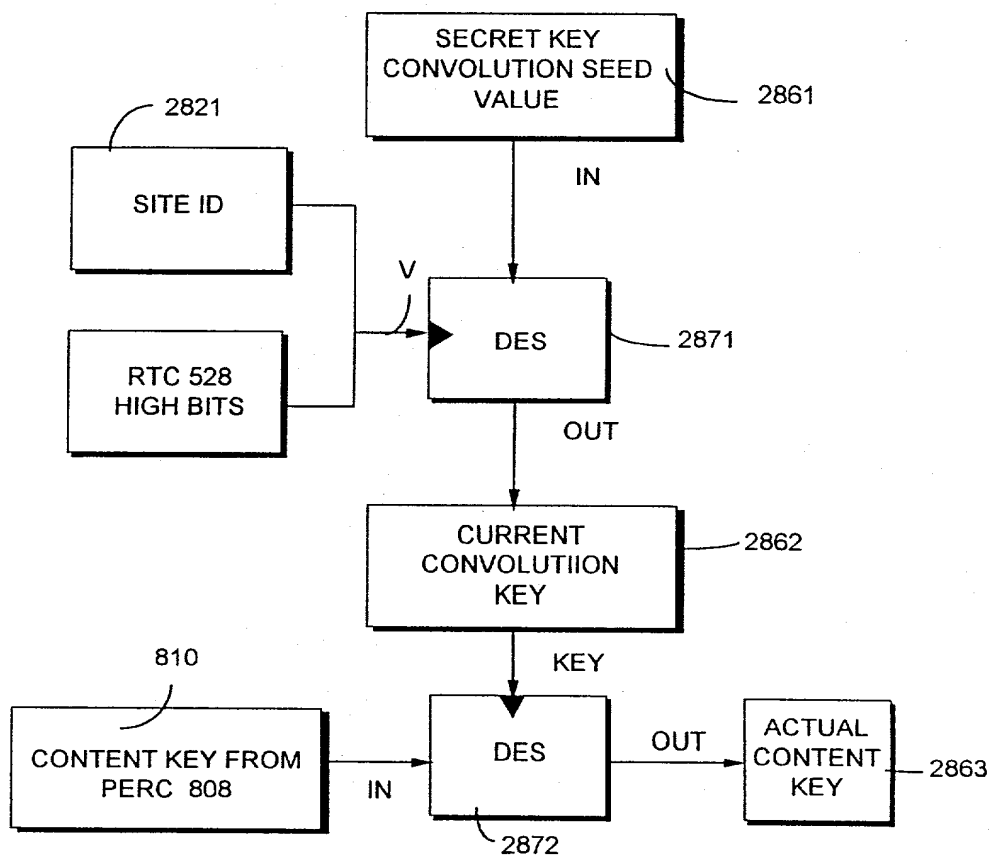


**FIG. 60**



**FIG. 61**

FIG. 62



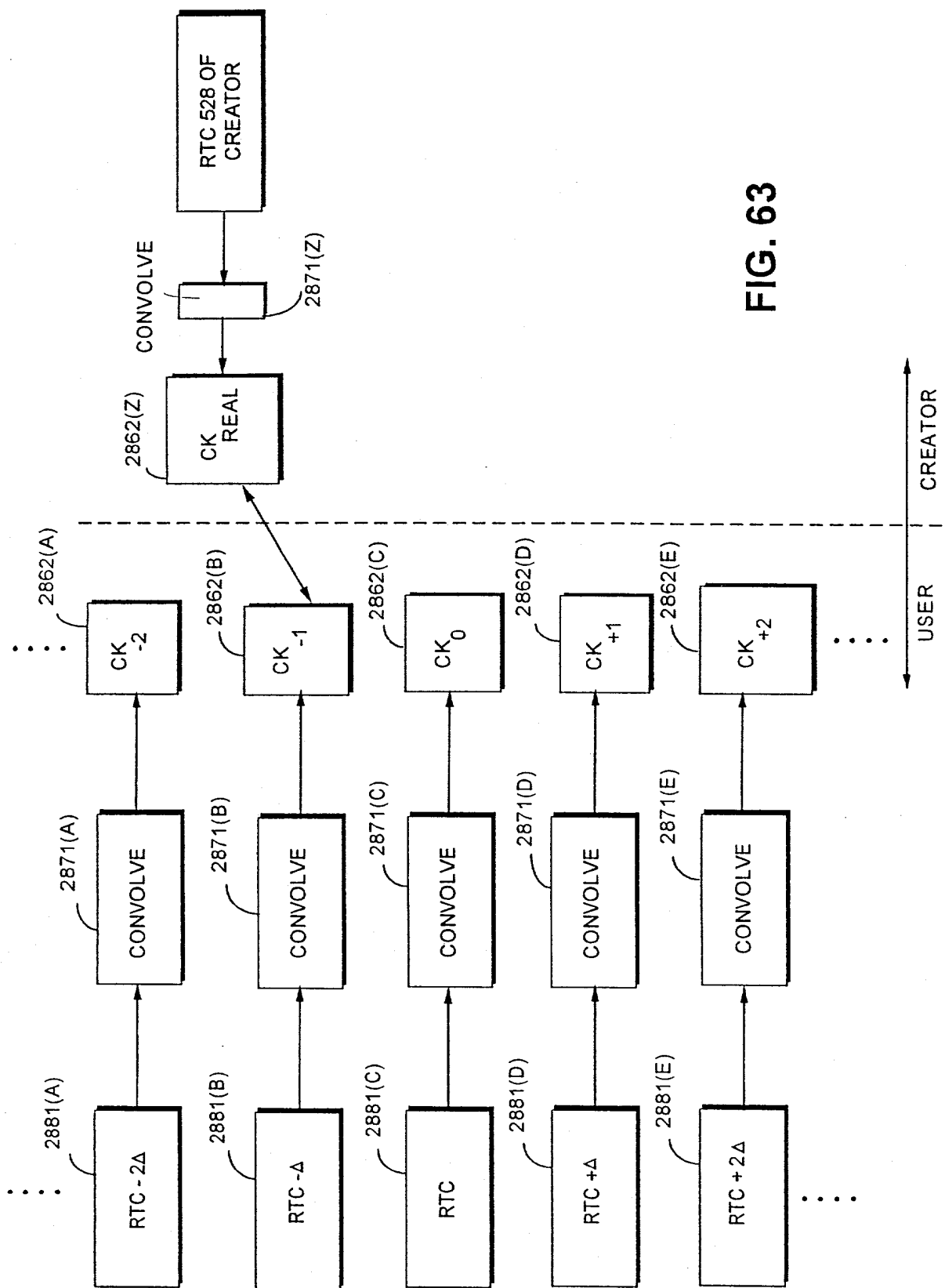


FIG. 63

**FIG. 64**

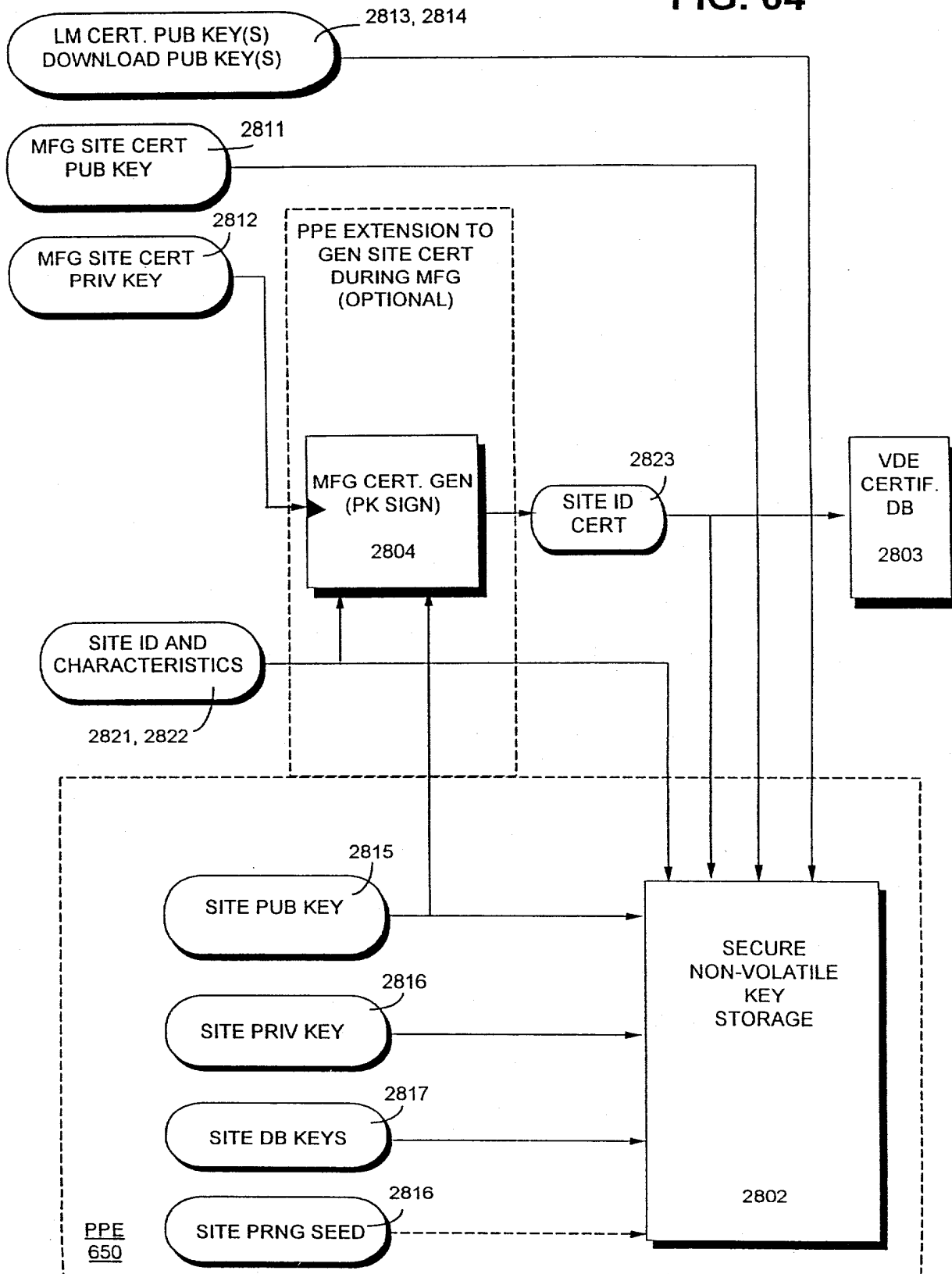


FIG. 65

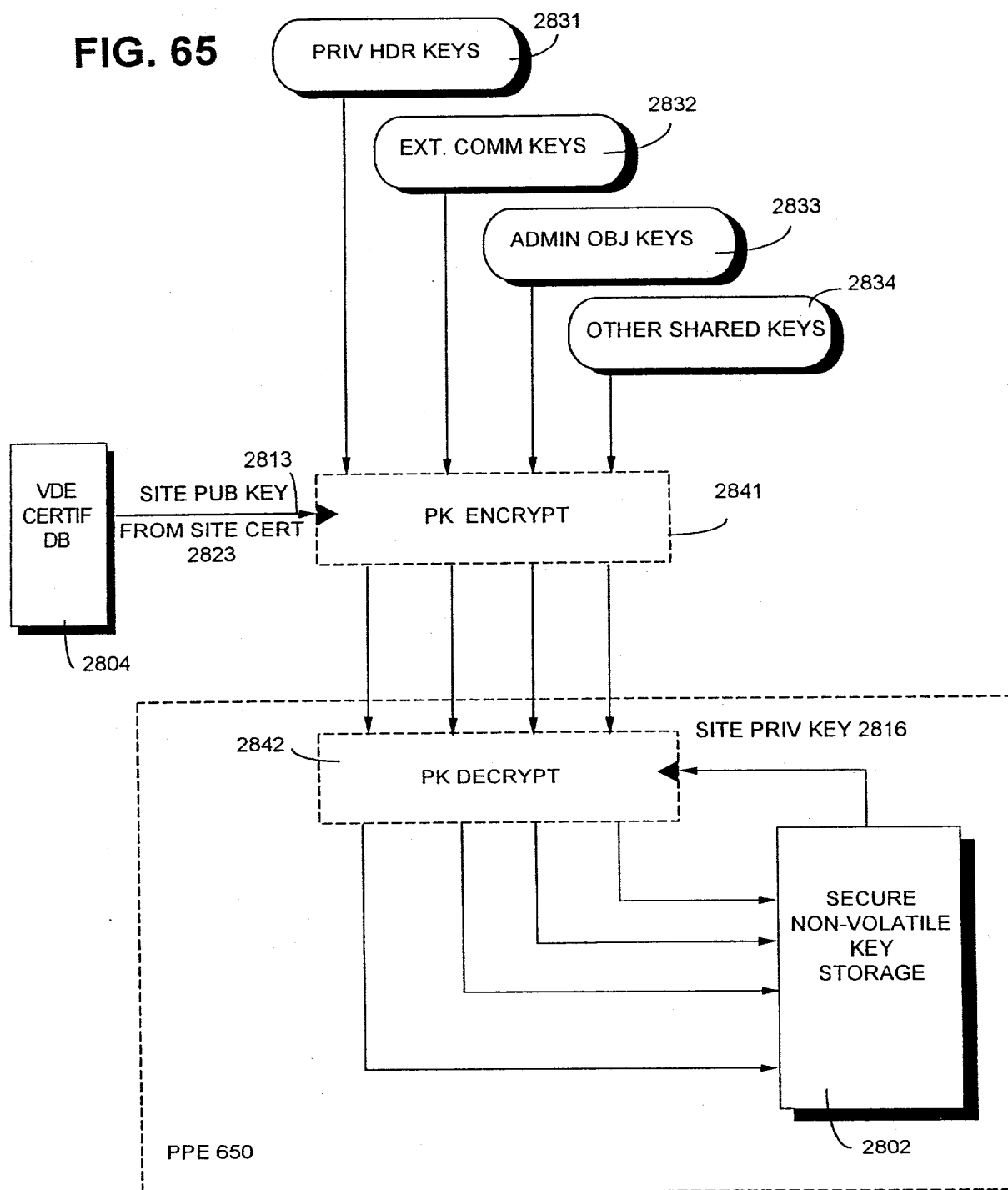
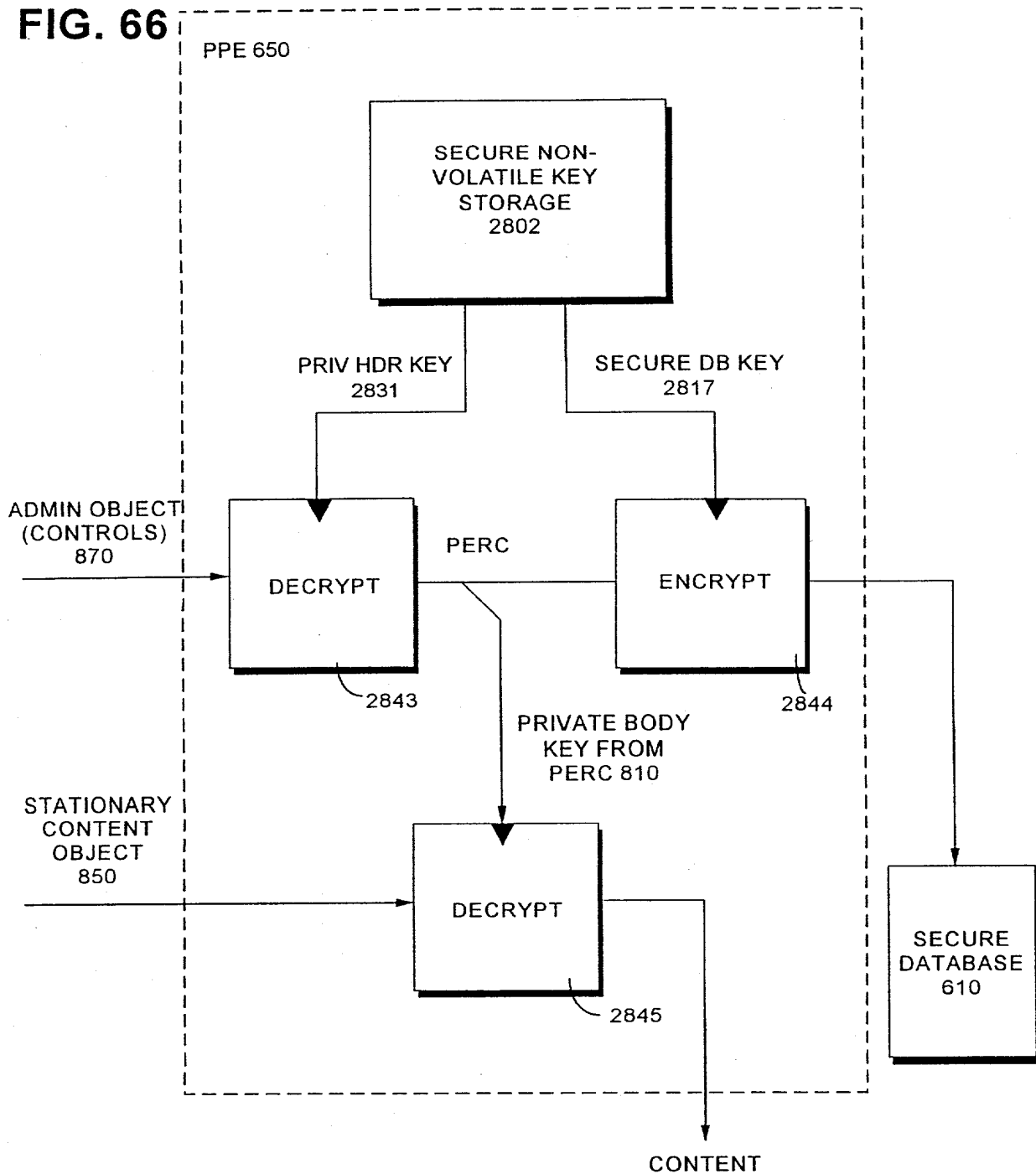
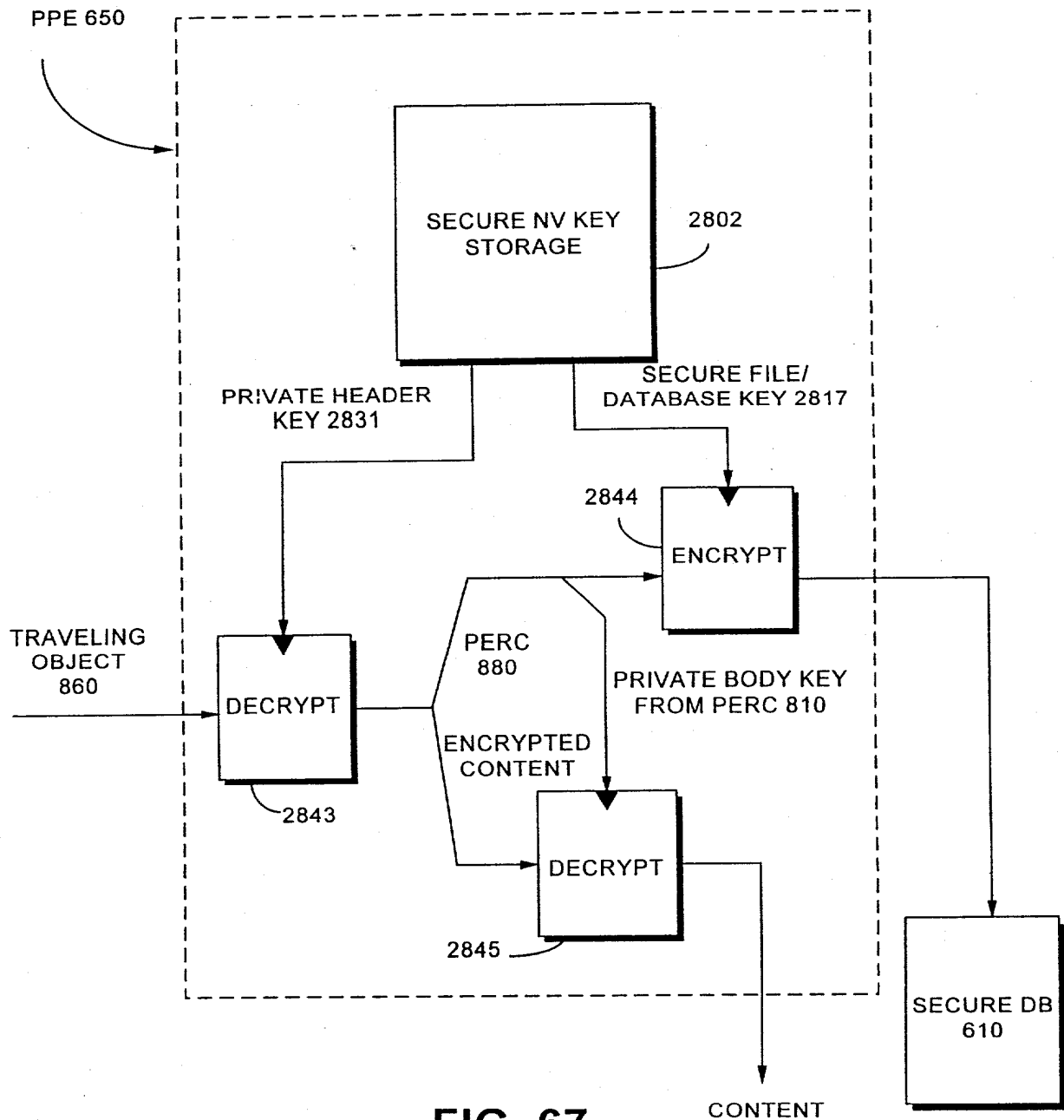


FIG. 66







**FIG. 67**



Fig. 67B

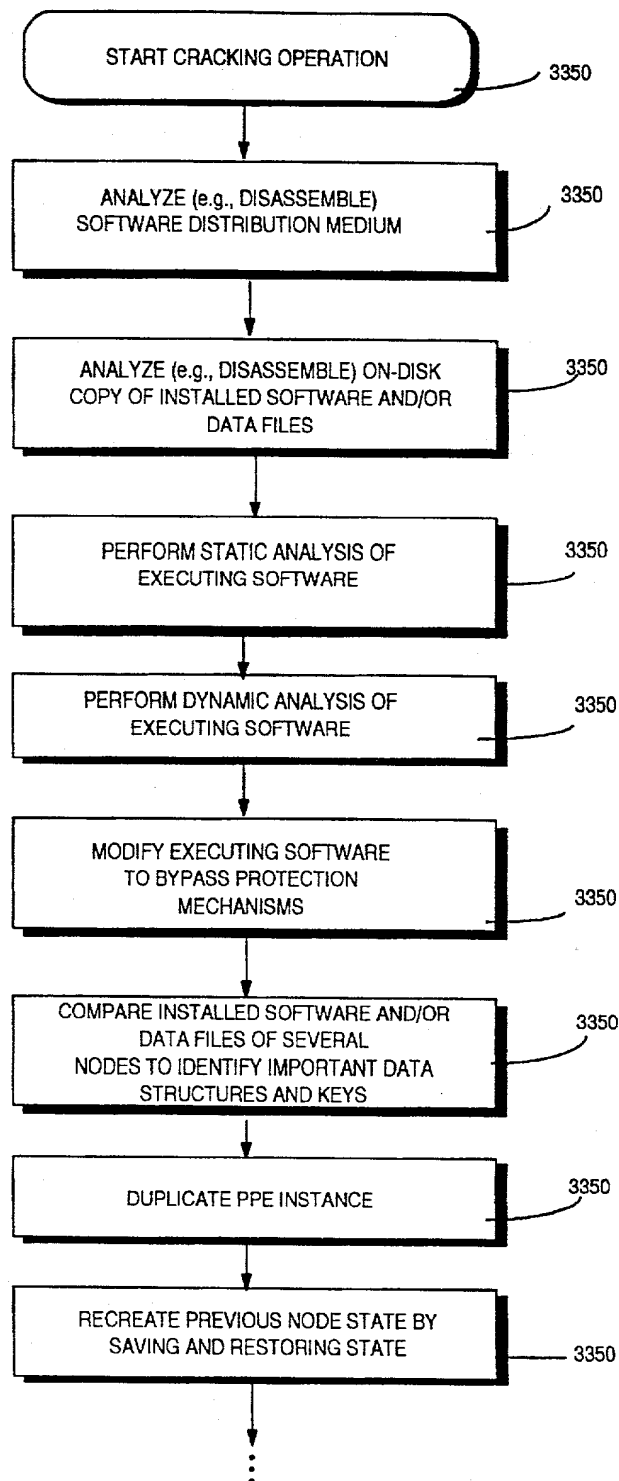


FIG. 68

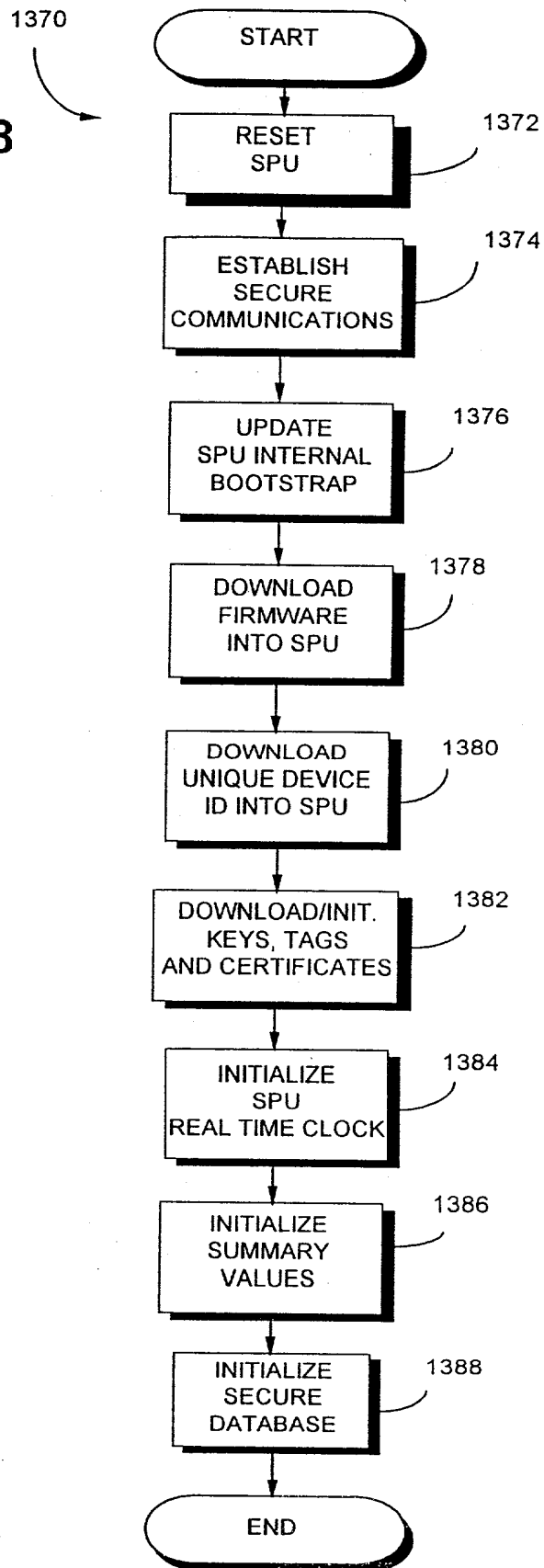


FIG. 69

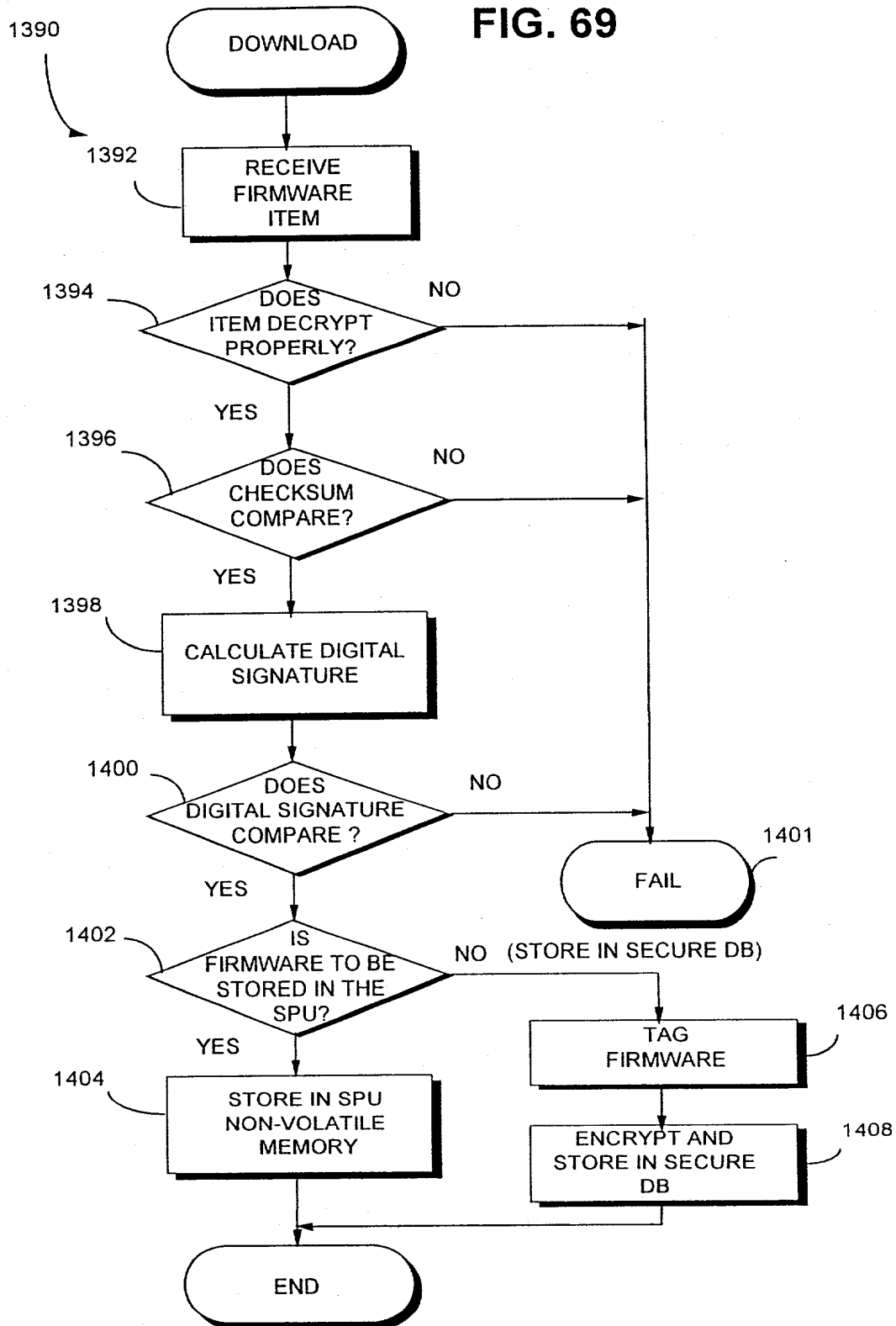


Fig. 69A

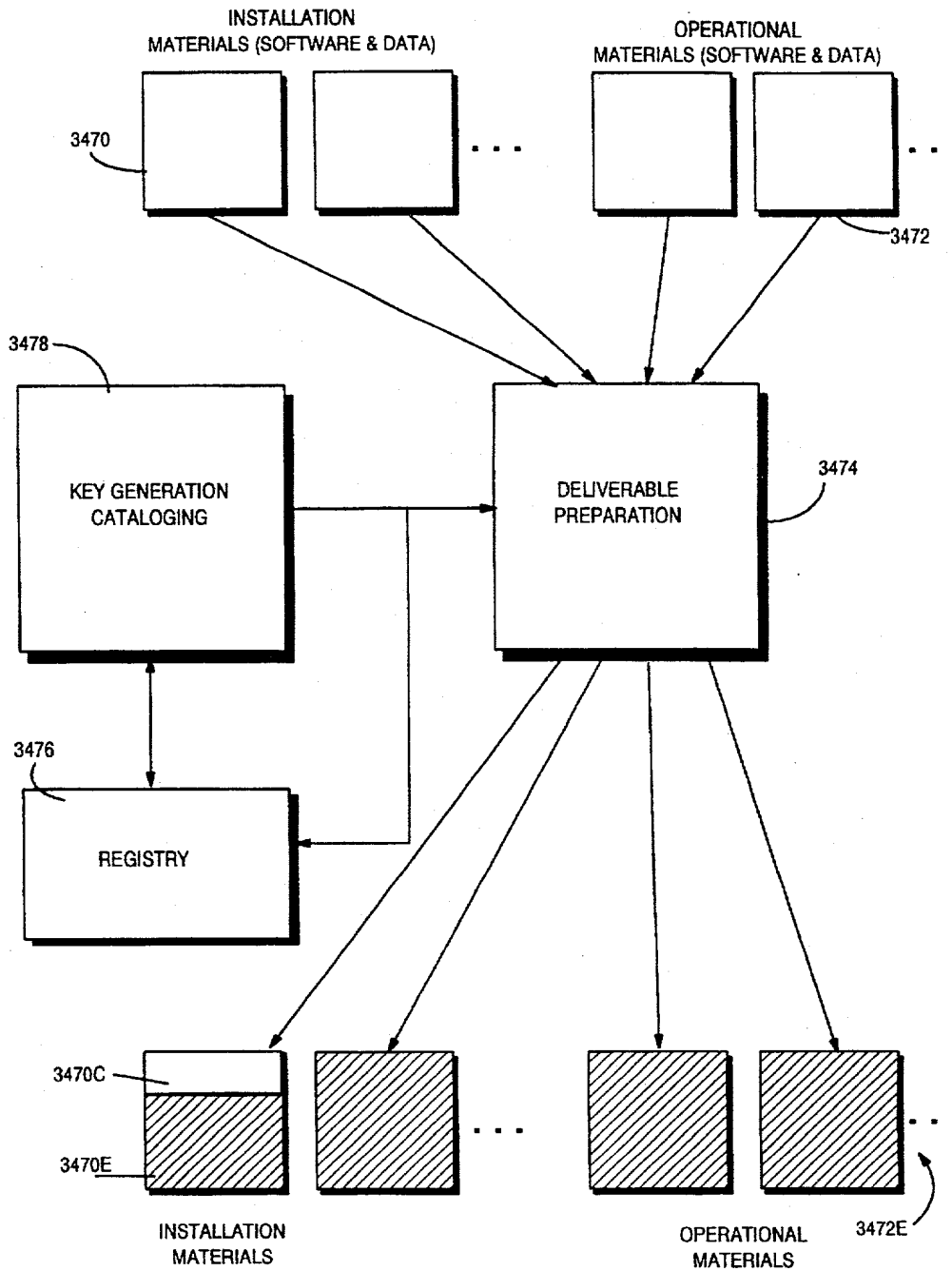


Fig. 69B

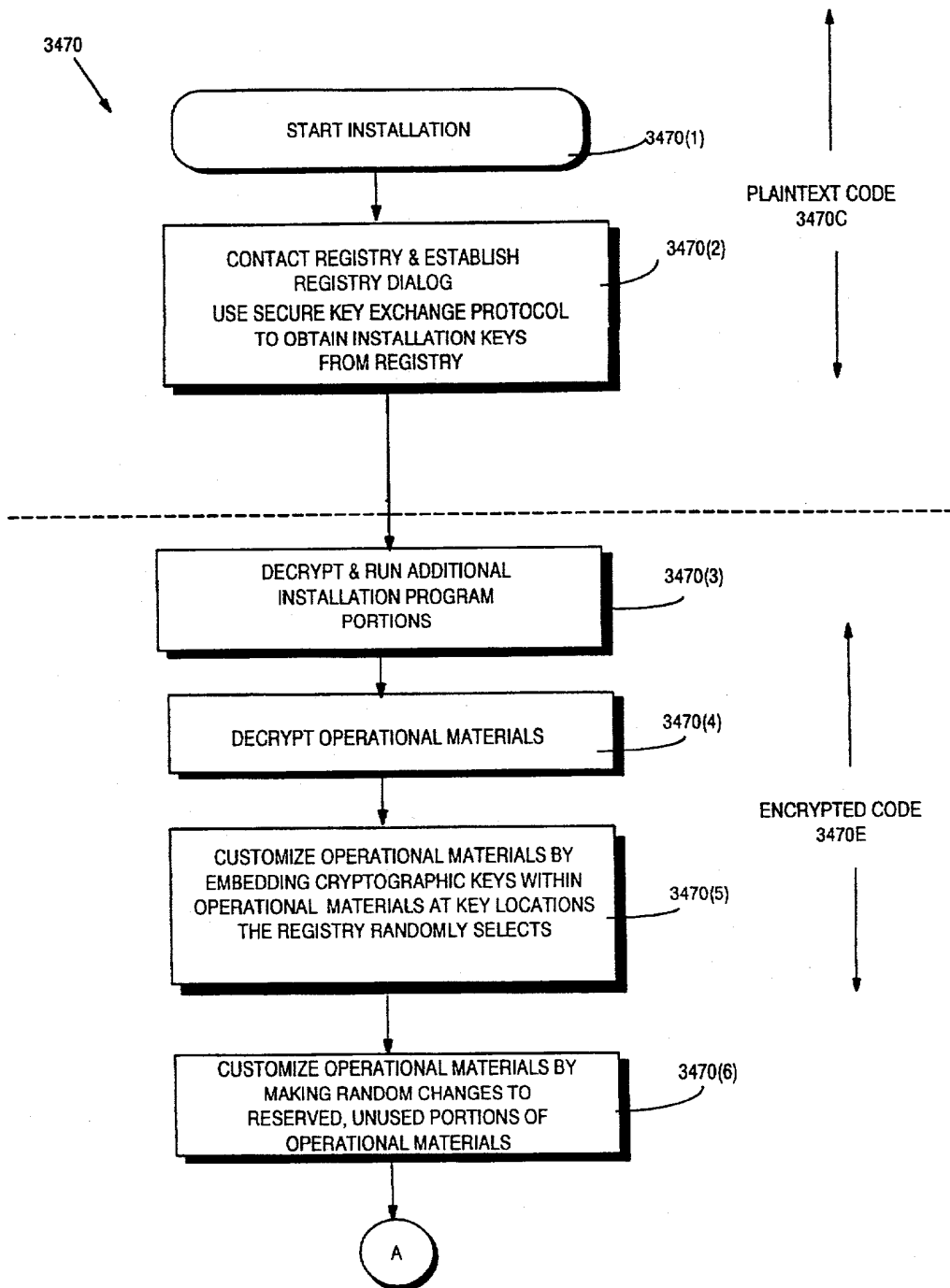
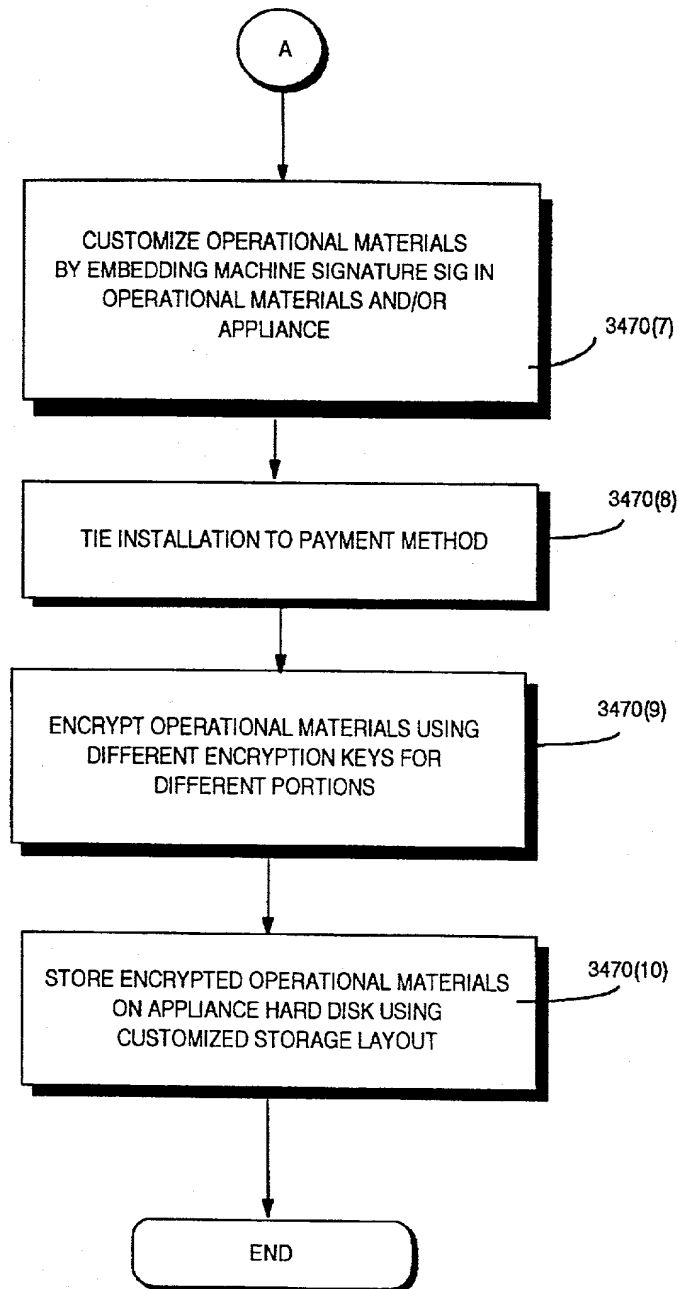


Fig. 69C





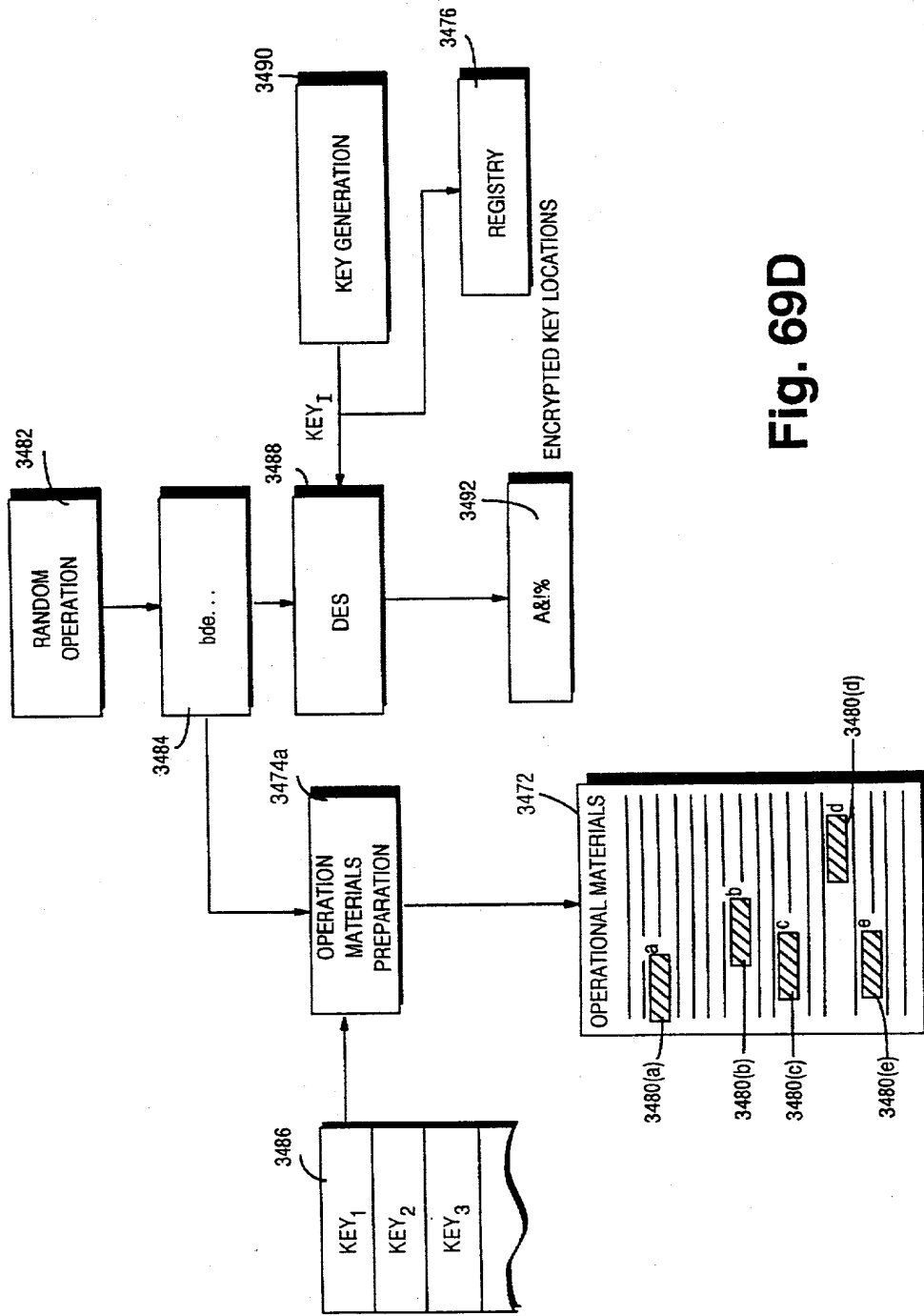


Fig. 69D

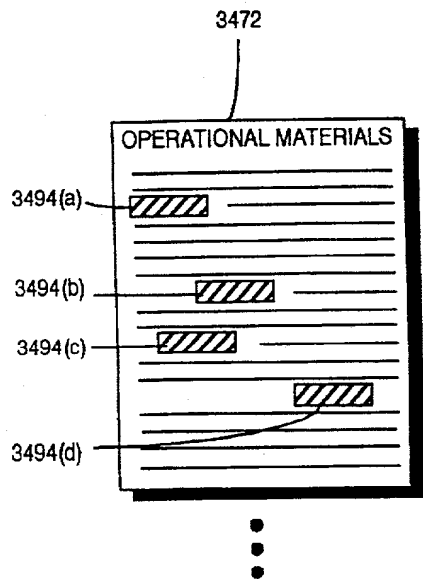


Fig. 69E

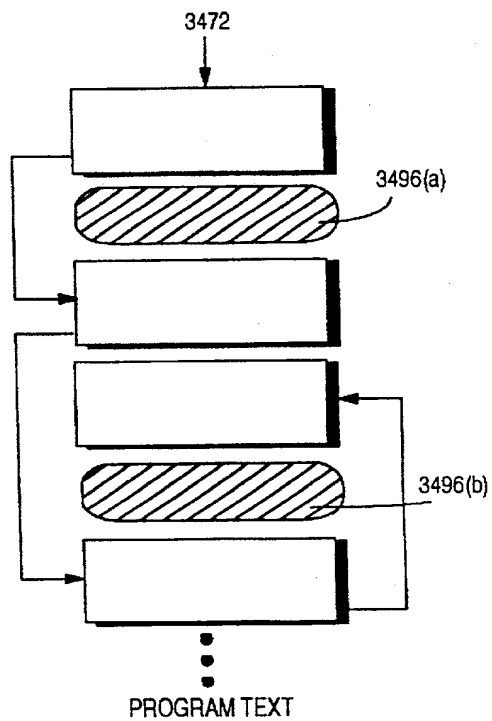
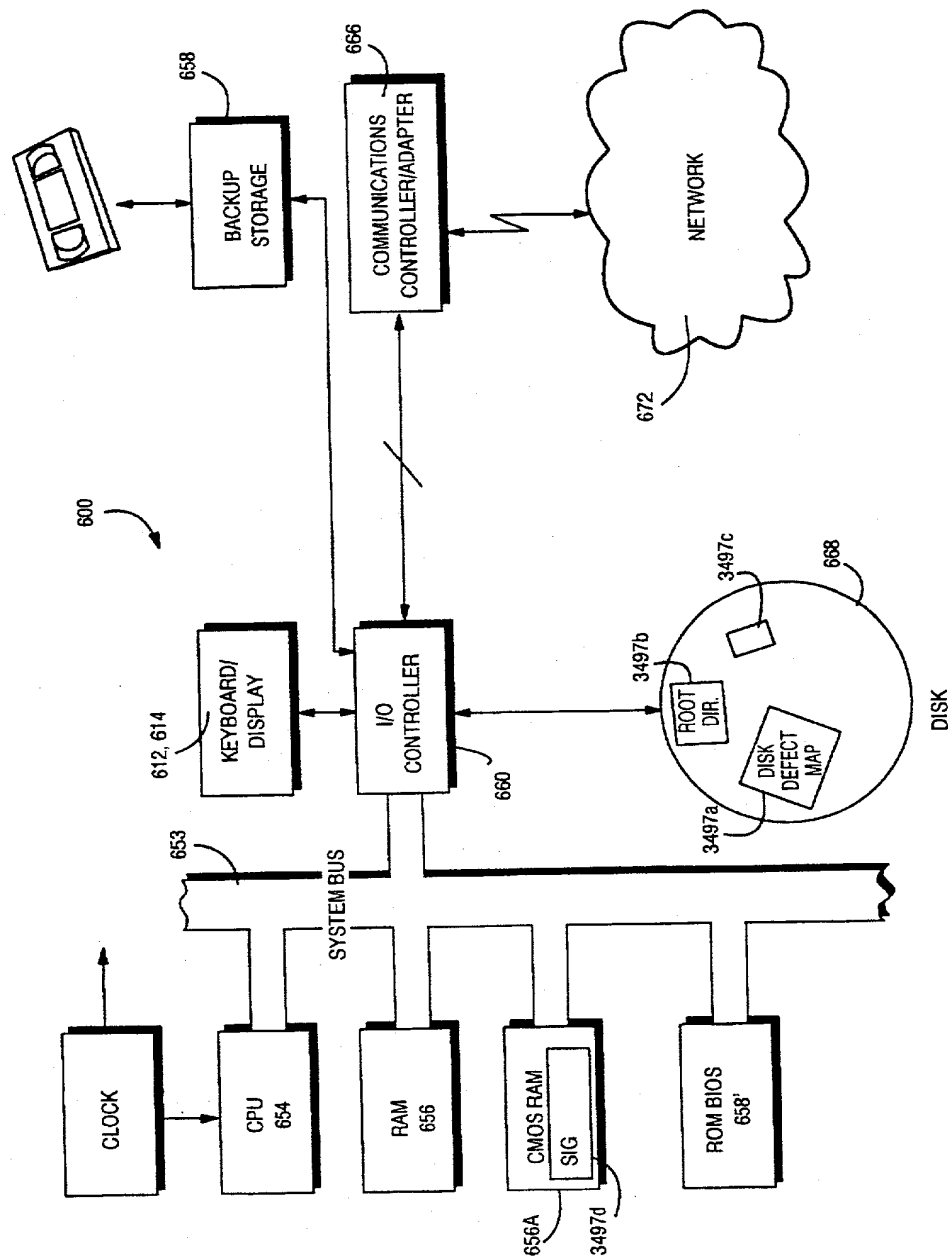
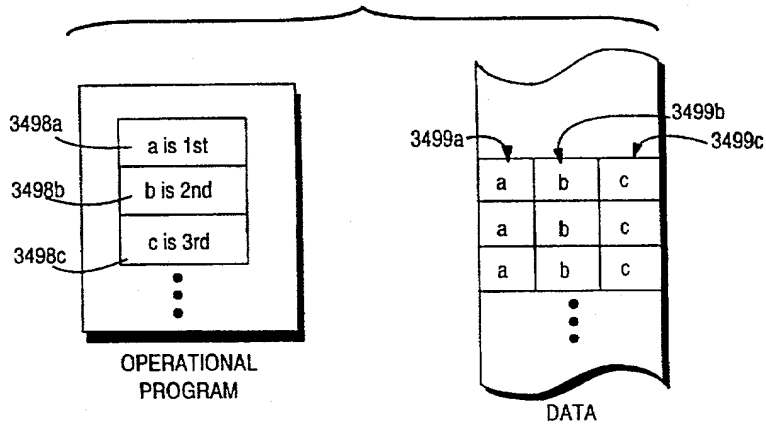
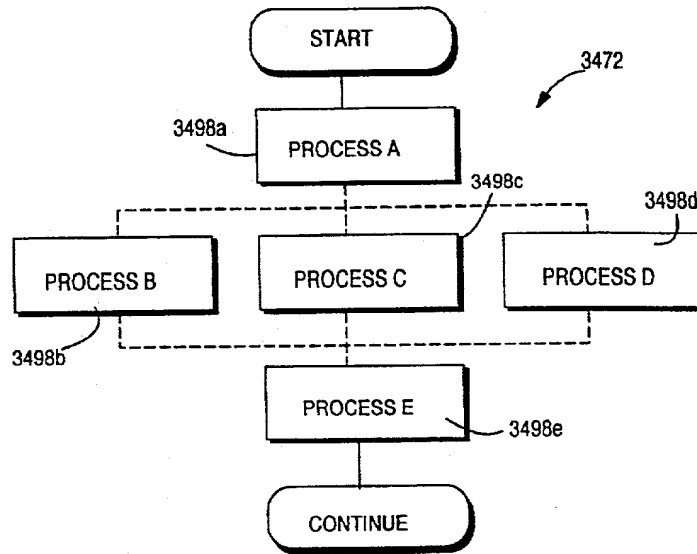


Fig. 69F

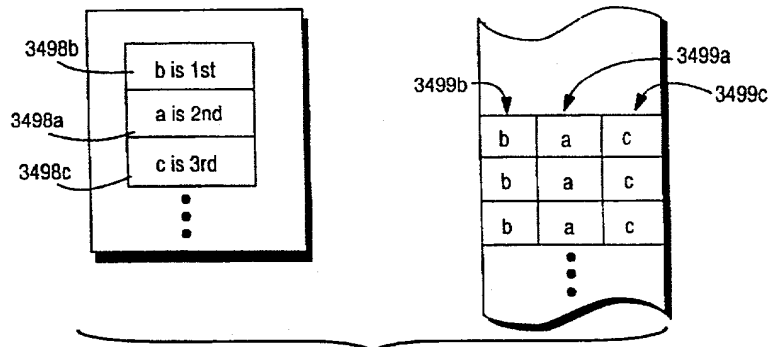
Fig. 69G



# Fig. 69H



# Fig. 69I



# Fig. 69J

Fig. 69K

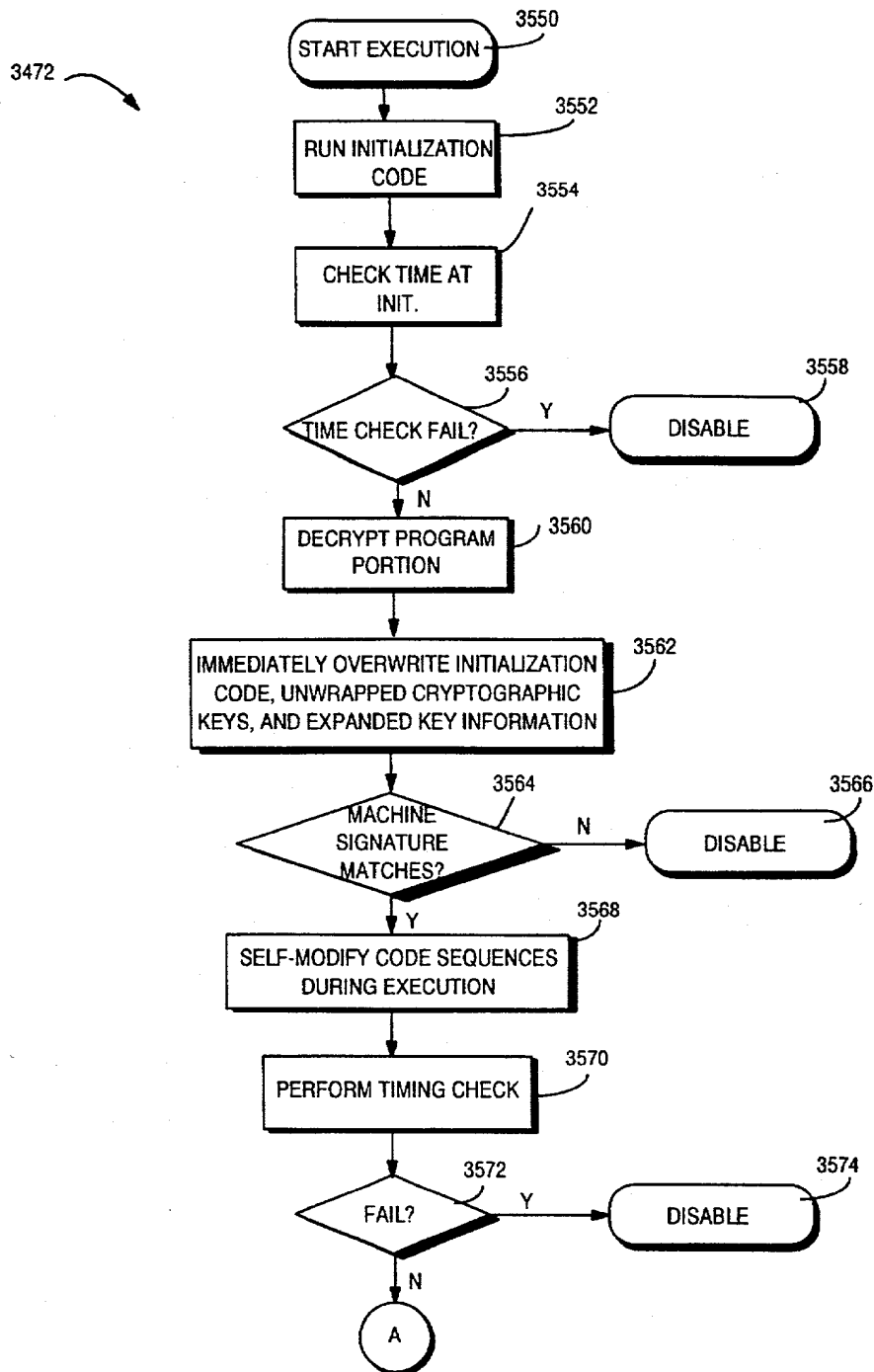


Fig. 69L

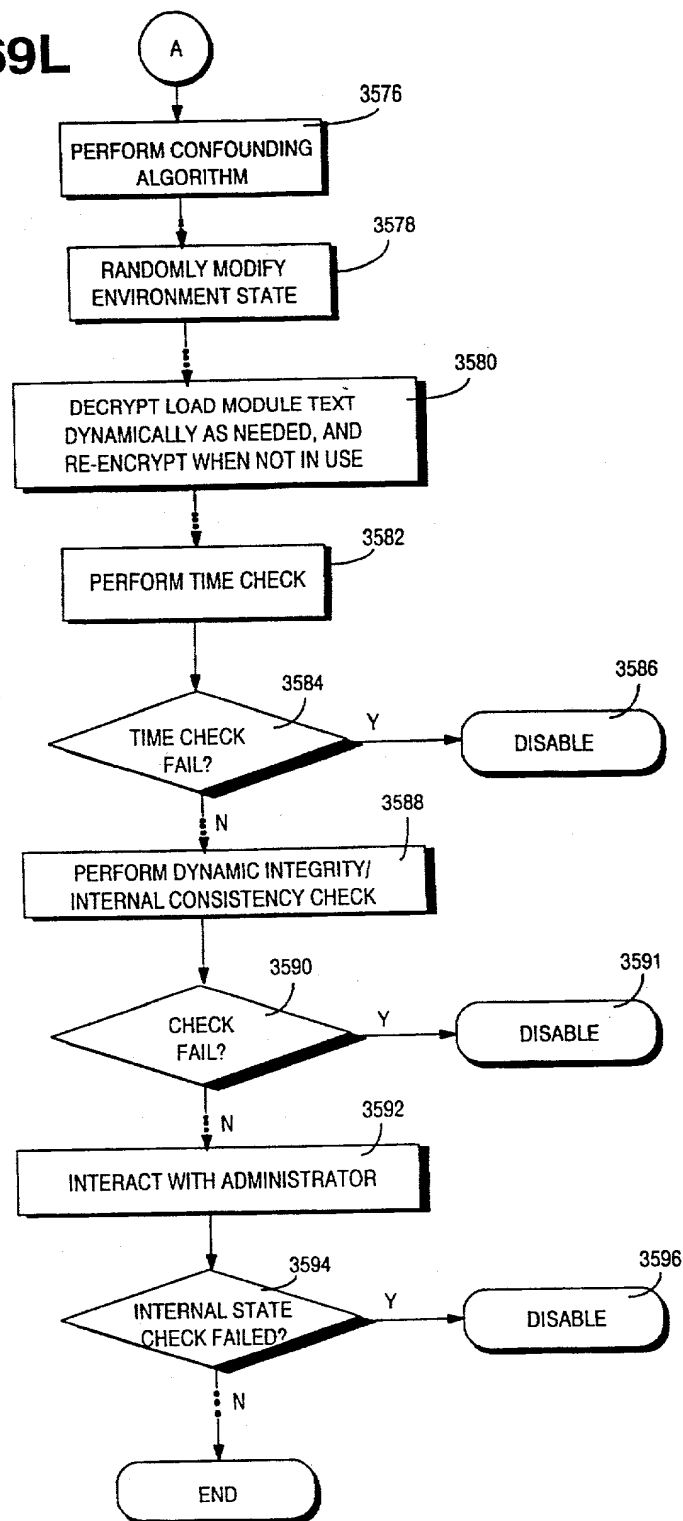
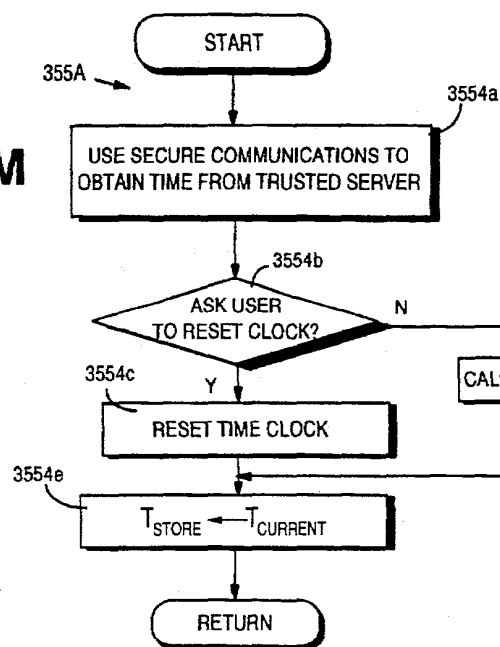


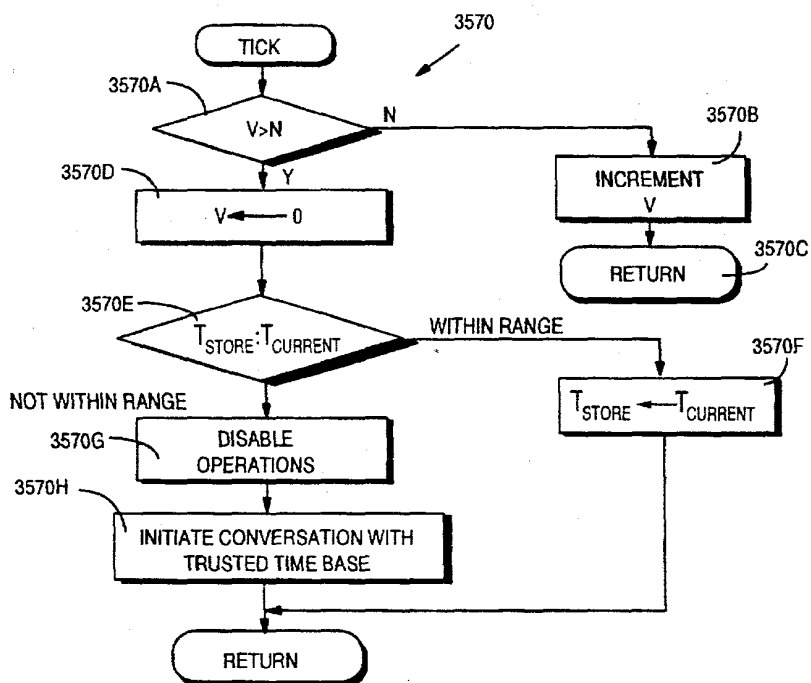
Fig. 69M

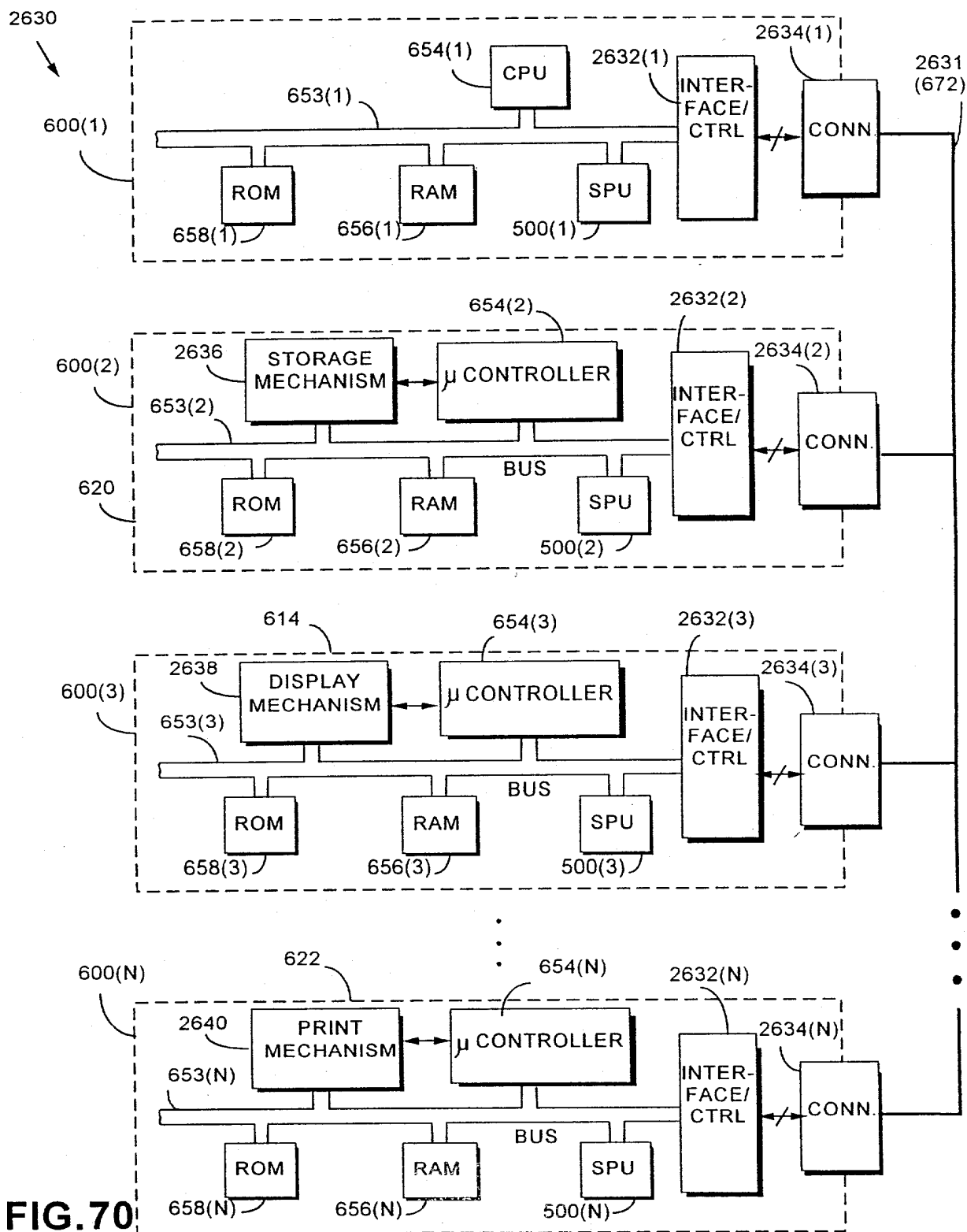


DRAFT BUDGET
AMT DRAFTED
ΔT
T <sub>STORE</sub>

Fig. 69O

Fig. 69N





**FIG.70**



FIG. 70A

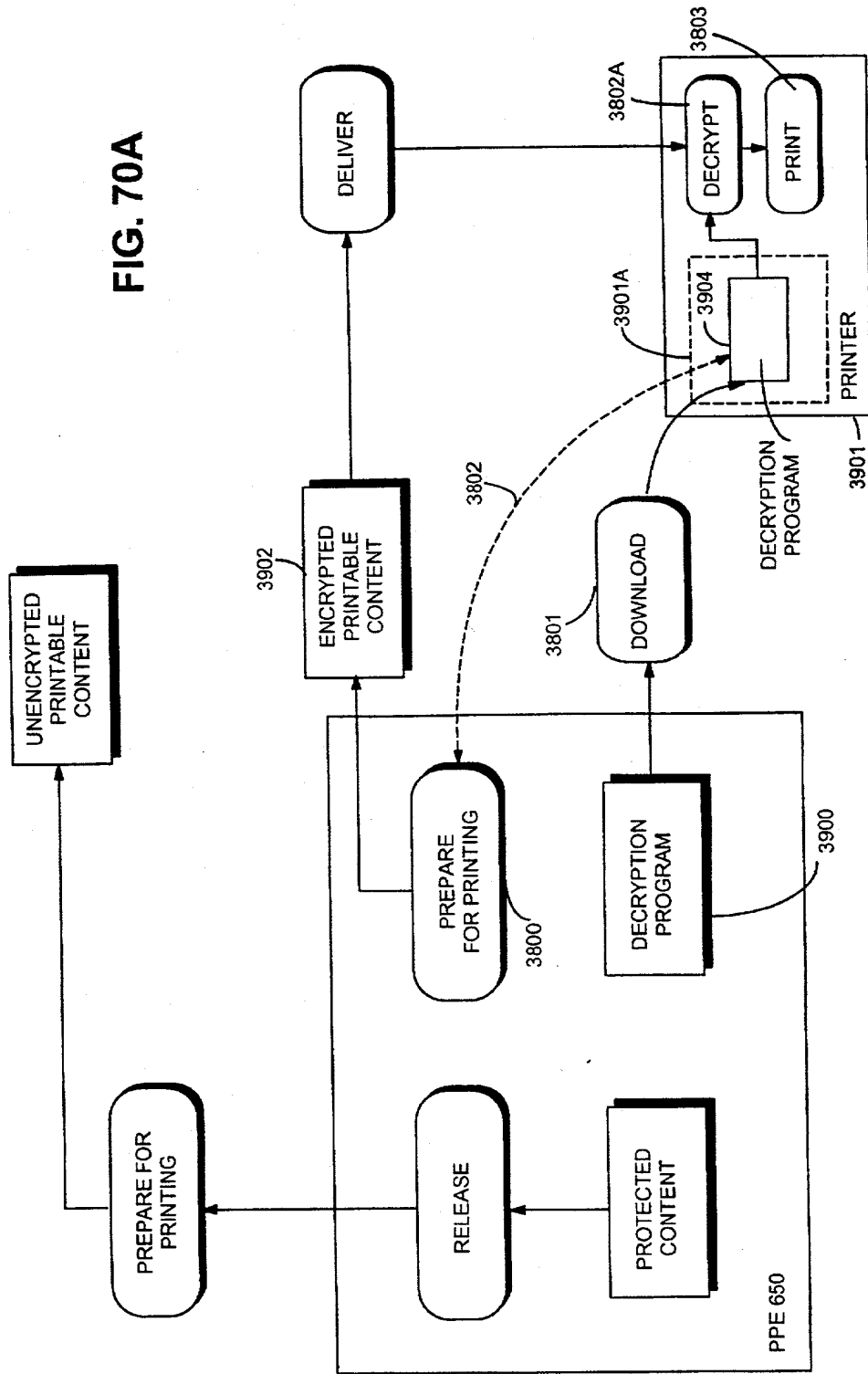


FIG. 70B

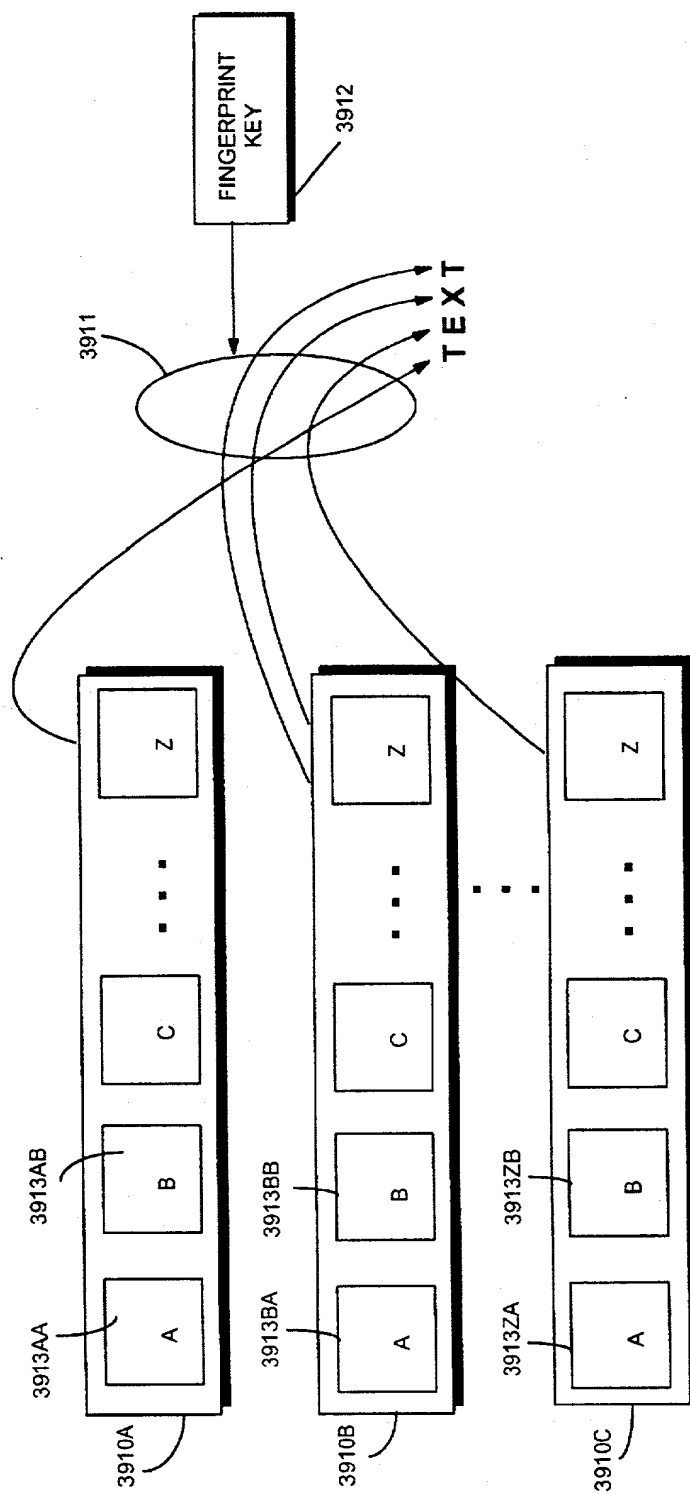


FIG. 70C

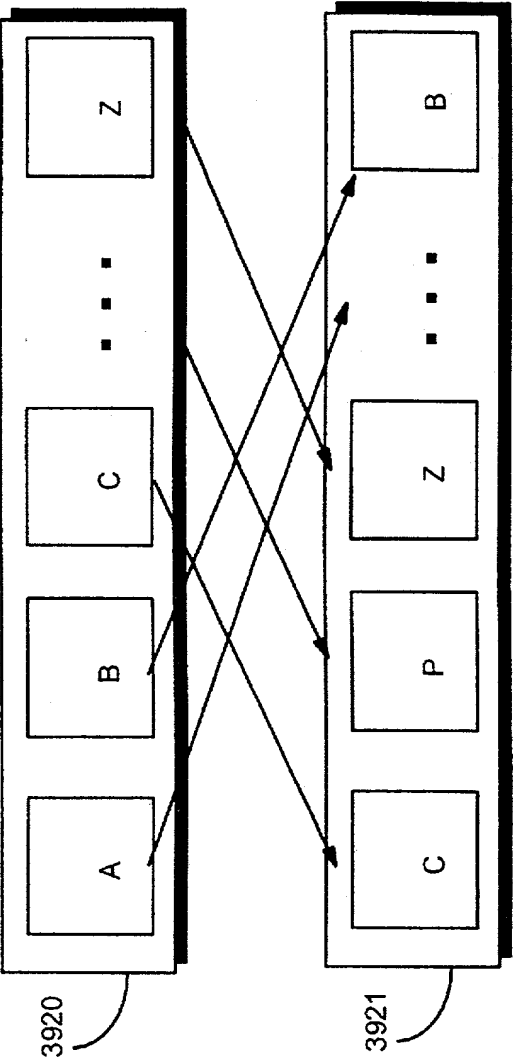
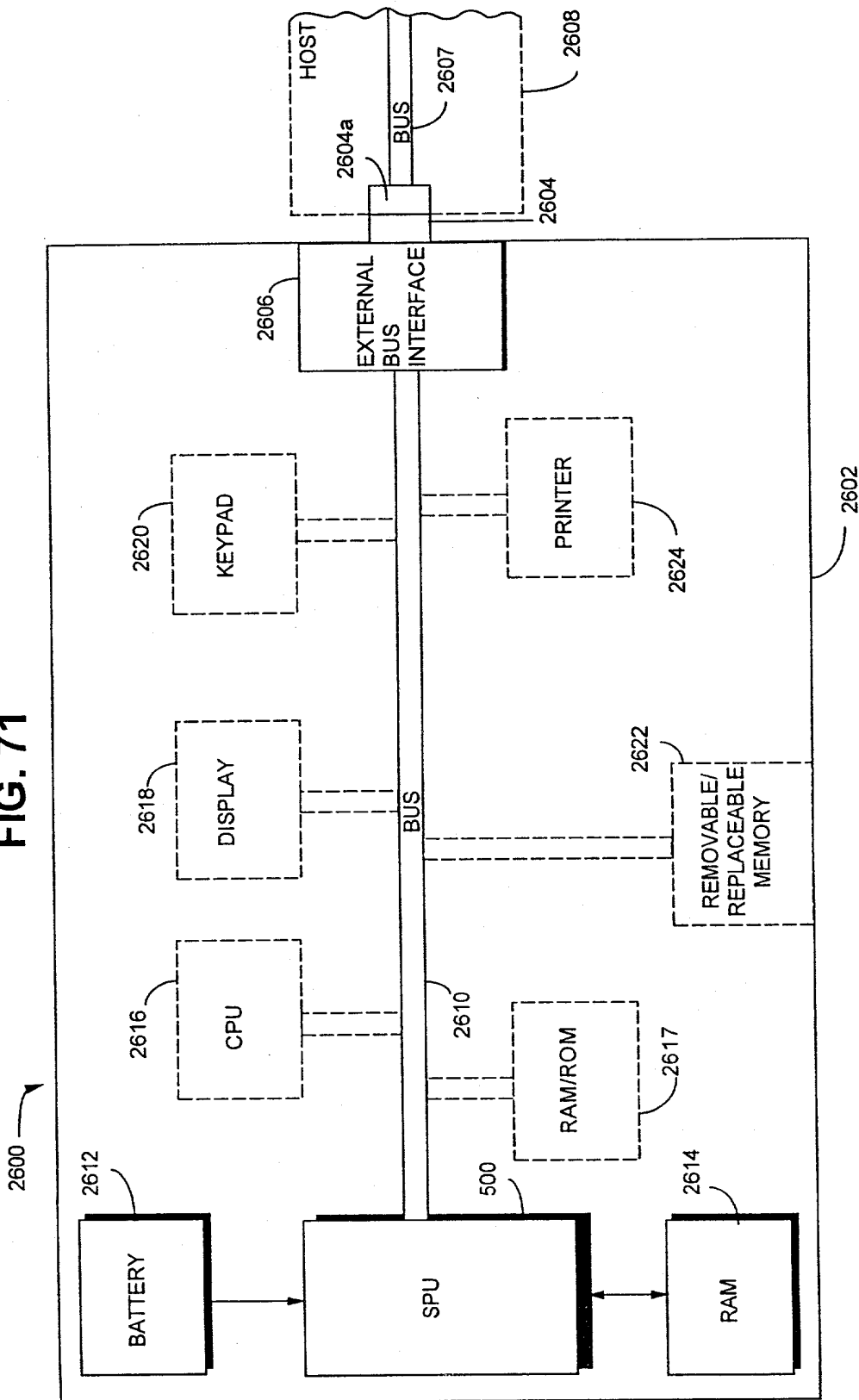
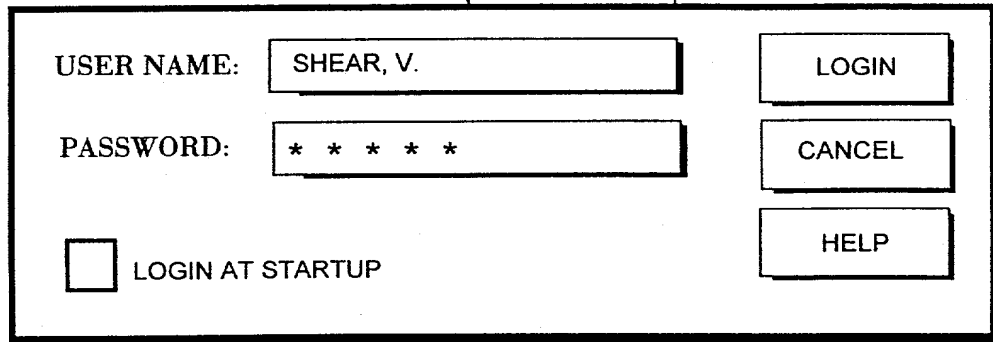


FIG. 71



LOG IN USER INTERFACE

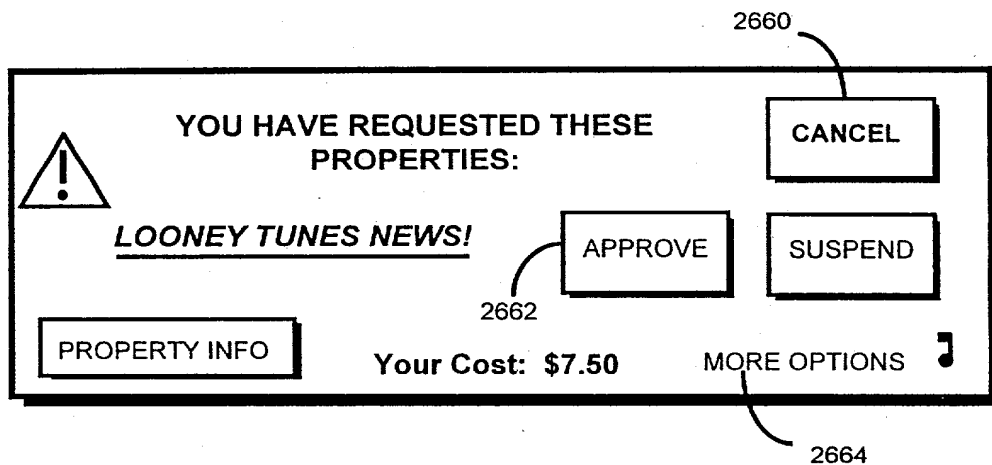
182



A diagram of a login user interface. It features a rectangular box with a thick border. Inside, on the left, are two input fields: the first is labeled "USER NAME:" and contains the text "SHEAR, V."; the second is labeled "PASSWORD:" and contains five asterisks. Below these is a checkbox labeled "LOGIN AT STARTUP". On the right side of the box are three buttons stacked vertically: "LOGIN", "CANCEL", and "HELP".

FIG. 72A

FIG. 72B



A diagram of a property request confirmation dialog. It features a rectangular box with a thick border. At the top left is a warning icon (a triangle with an exclamation mark). To its right is the text "YOU HAVE REQUESTED THESE PROPERTIES:". Below this is the text "LOONEY TUNES NEWS!". At the bottom left is a button labeled "PROPERTY INFO". At the bottom center is the text "Your Cost: \$7.50". At the bottom right is the text "MORE OPTIONS" followed by a small musical note icon. On the right side of the box are three buttons stacked vertically: "CANCEL", "APPROVE", and "SUSPEND".

FIG. 72C

2666

**SET LIMITS:**

SESSION DOLLAR LIMIT: \$

50

TRANSACTION DOLLAR LIMIT: \$

50

2668

TIME LIMIT (IN MINUTES):

50

2670

UNIT LIMIT:

50

2672

2674

OK

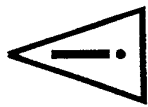
CANCEL

HELP!

↕

WARNER BROS. PICTURES PRESENTS A WARNER BROS. PICTURES PRODUCTION  
A WARNER BROS. PICTURES PRODUCTION  
A WARNER BROS. PICTURES PRODUCTION

FIG. 72D



YOU HAVE REQUESTED THESE PROPERTIES:

**LOONEY TUNE NEWS!**

**PROPERTY INFO**

YOUR COST : \$7.50

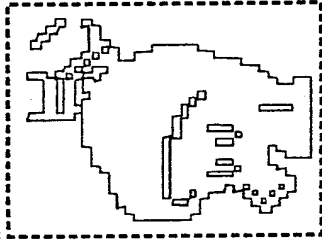
More Options ☒

Show Thumbnail

CANCEL

SUSPEND

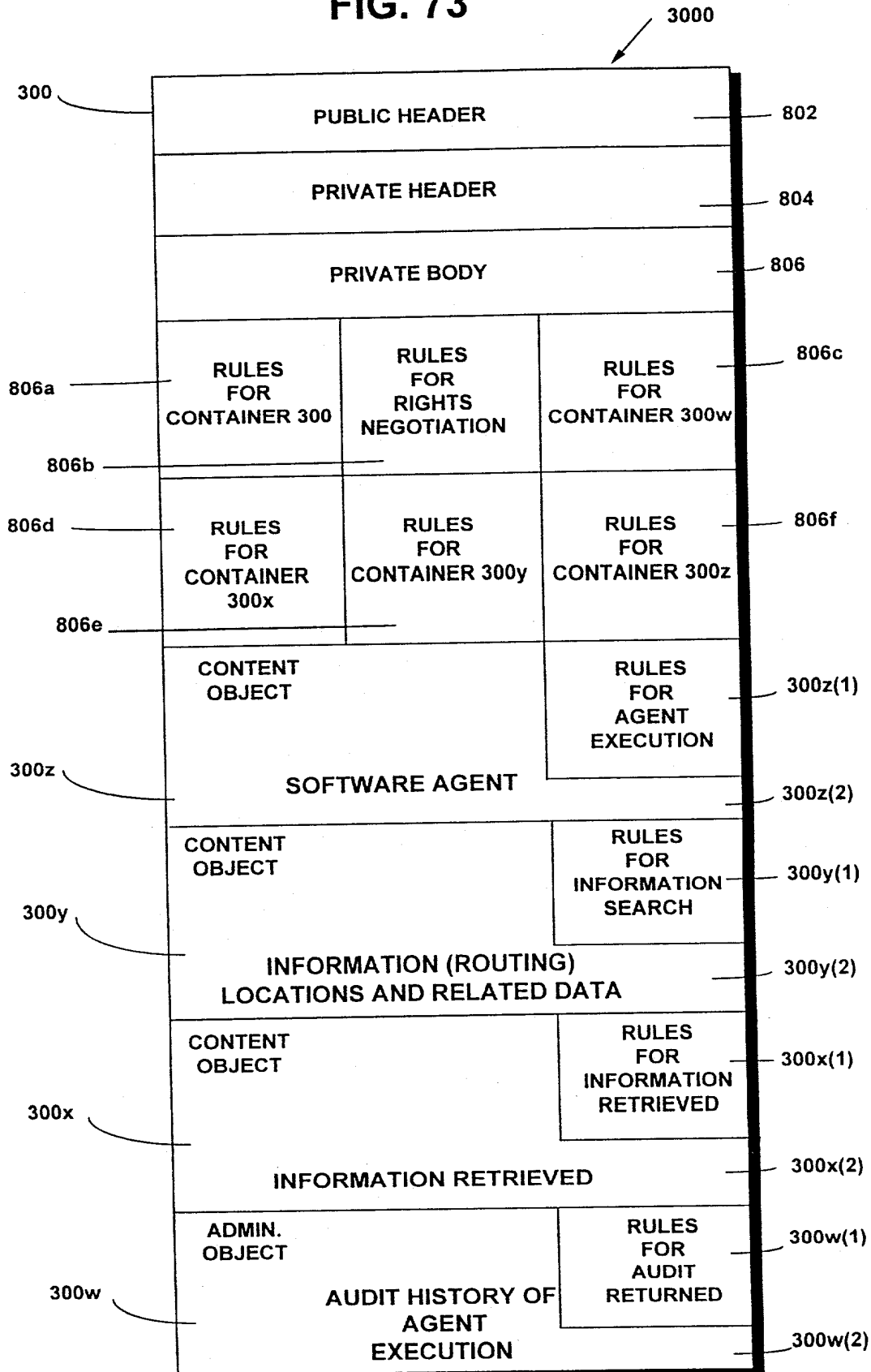
APPROVE



PROPERTY:	SIZE:	PUBLISHER:	AMOUNT:	UNITS:	COST/UNIT:	TYPE:	USE?:	LINKS:	HIST:
CHUCK JONES BIOGRA...	256KB	WARNER NEW MEDIA	64	KBYTE	\$1.25	PREVIEW	✓	●	●
▼ BUGS BUNNY.JPE...	1MB	WARNER NEW MEDIA	1	RECORD	\$5.00	DISPLAY	✓	●	●
BUGS BUNNY.JPEG...	1MB	WARNER NEW MEDIA	10	RECORD	\$3.50	DISPLAY		●	●
BUGS BUNNY.JPEG...	1MB	WARNER NEW MEDIA	25	RECORD	\$2.50	DISPLAY		●	●
FRIZ FRELENG BIOGRA...	256KB	WARNER NEW MEDIA	120	SECTOR	\$5.00	PRINT			
TEX AVERY BIOGRAP...	256KB	WARNER NEW MEDIA	50	PERCENT	\$2.50	COPY			
► DUCK! RABBIT! DU...	64MB	WARNER NEW MEDIA	7.0	MINUTE	\$7.50	COPY-PRO			
MEL BLANC BIOGRAPH...	256KB	WARNER NEW MEDIA	1	SPECIAL	\$25.25	INSTALL			
LOONEY TUNES DATAB...	600MB	WARNER NEW MEDIA	1	OBJECT	\$2000.00	ALL			●

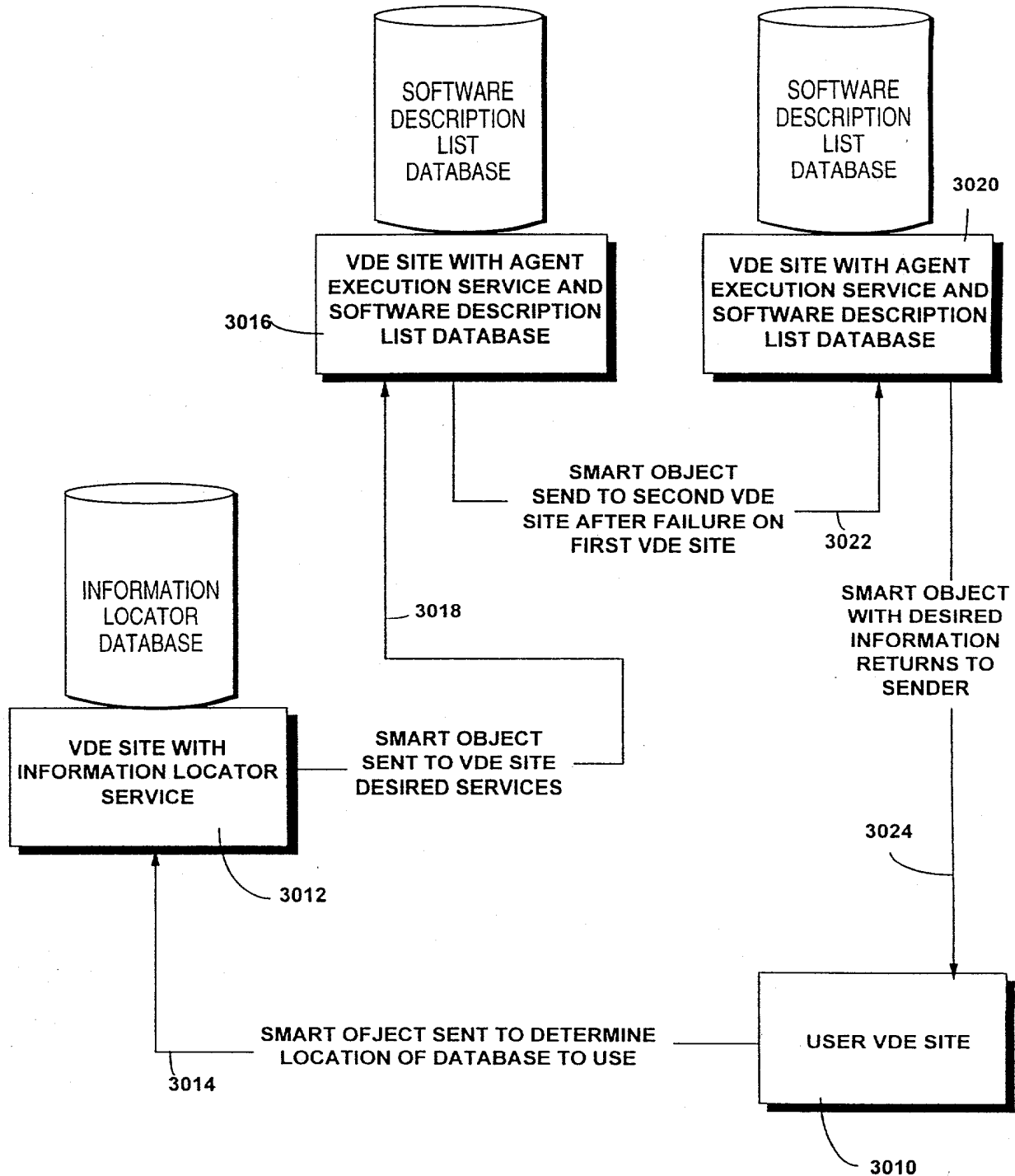
SET LIMITS... SHOW BUDGETS ACQUIRE BUDGET... HISTORY... TRANSFER... PREFERENCES... FEEDBACK... HELP!

# FIG. 73

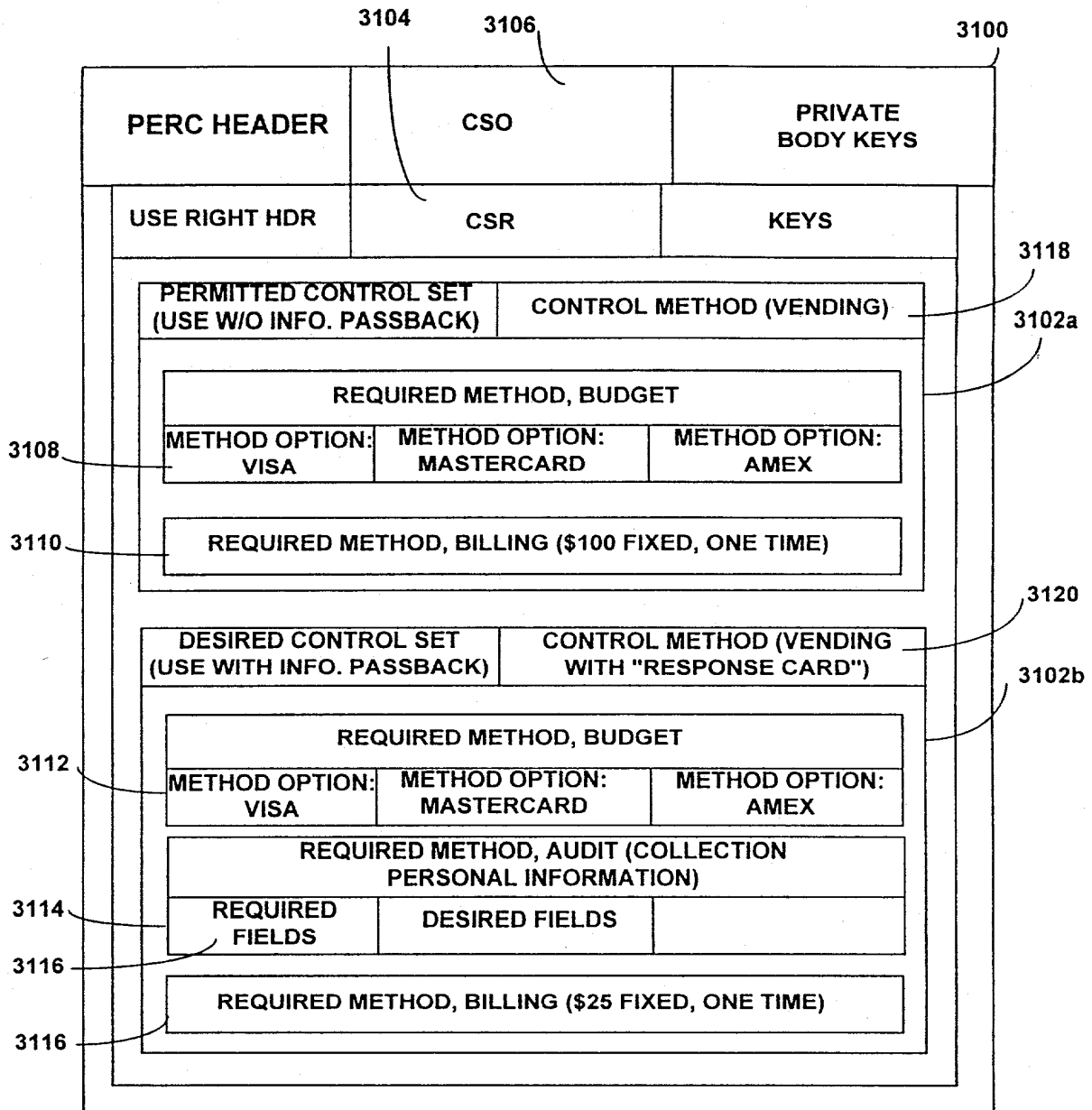




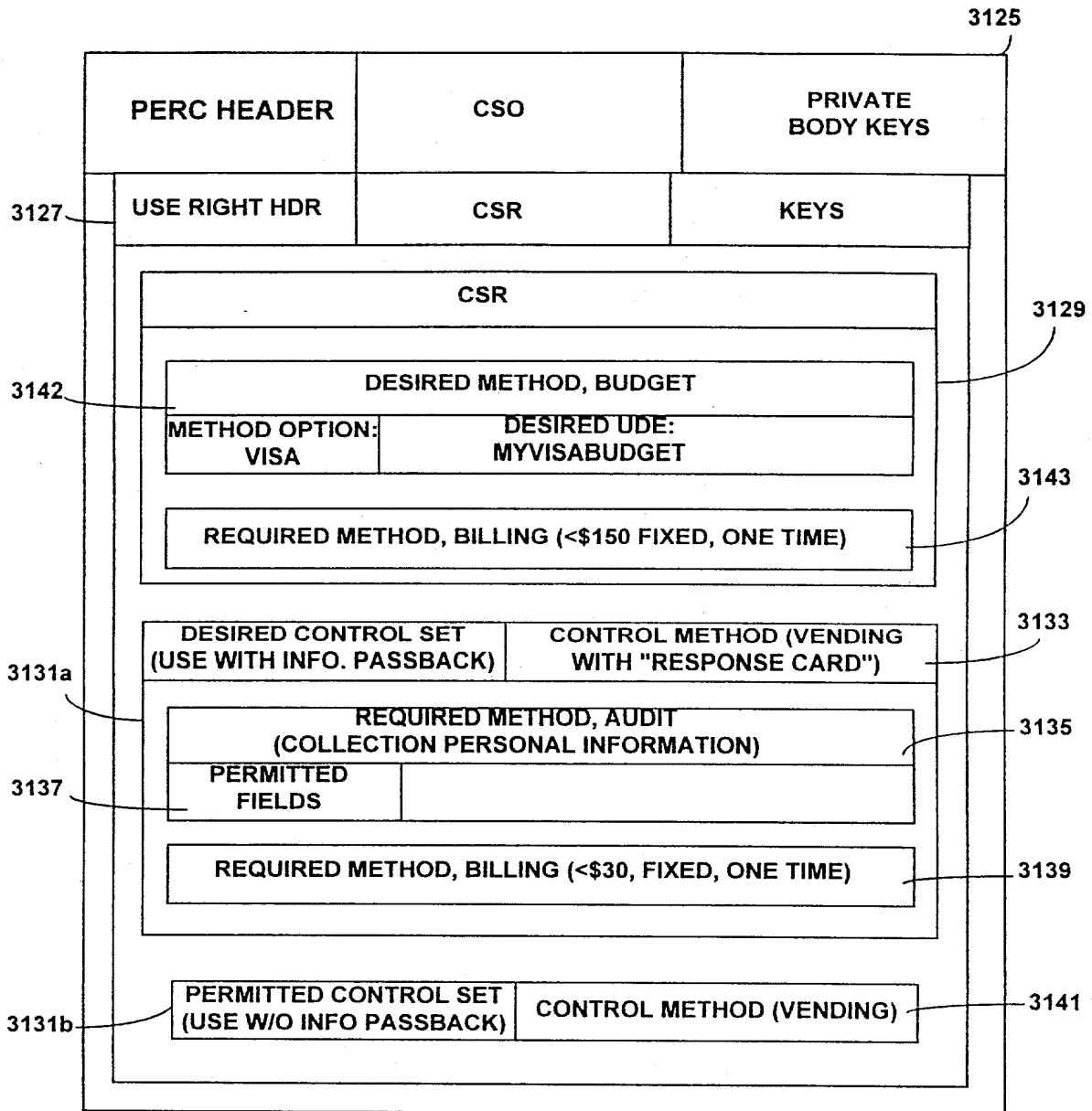
**FIG. 74**



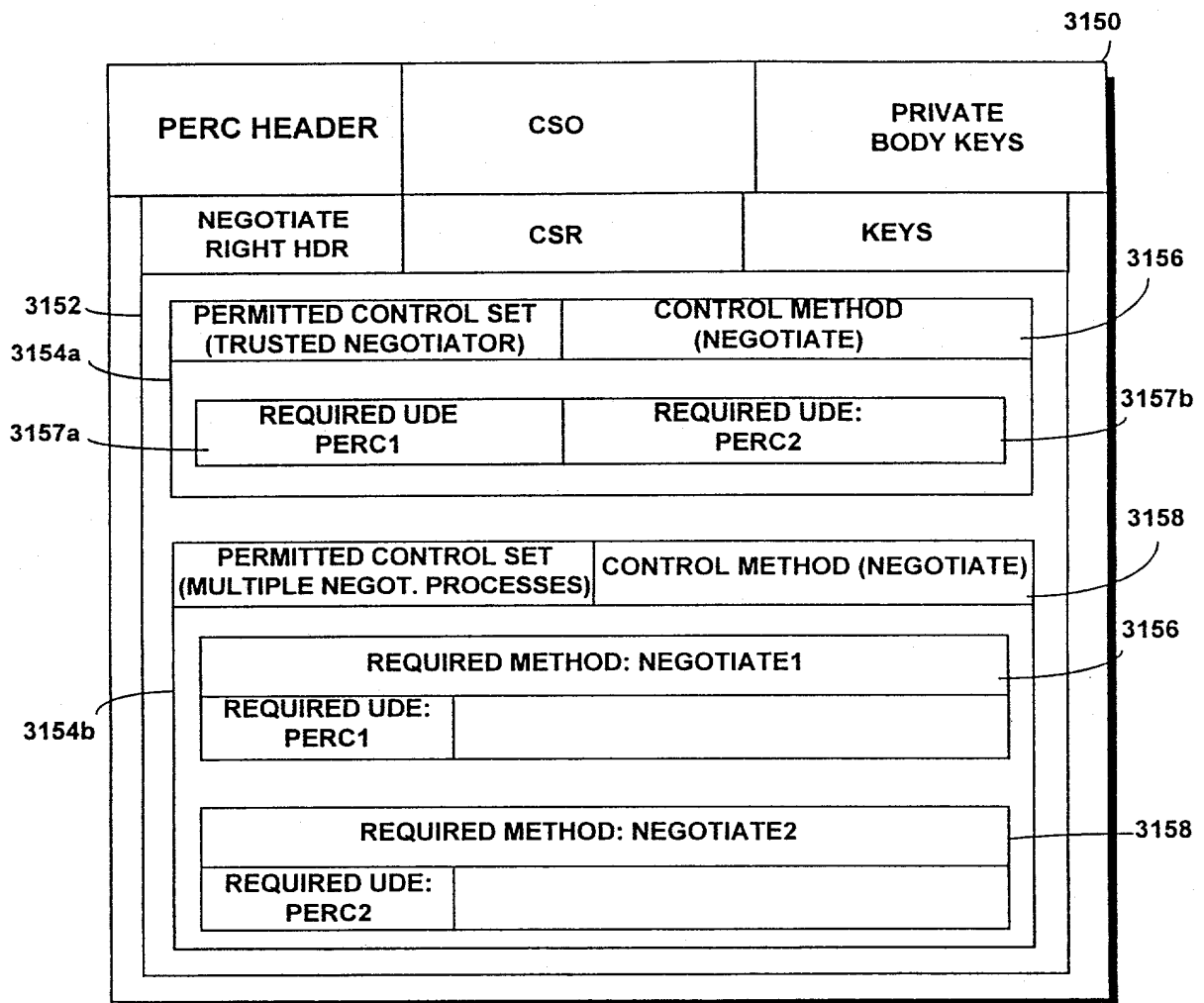
# FIG. 75A



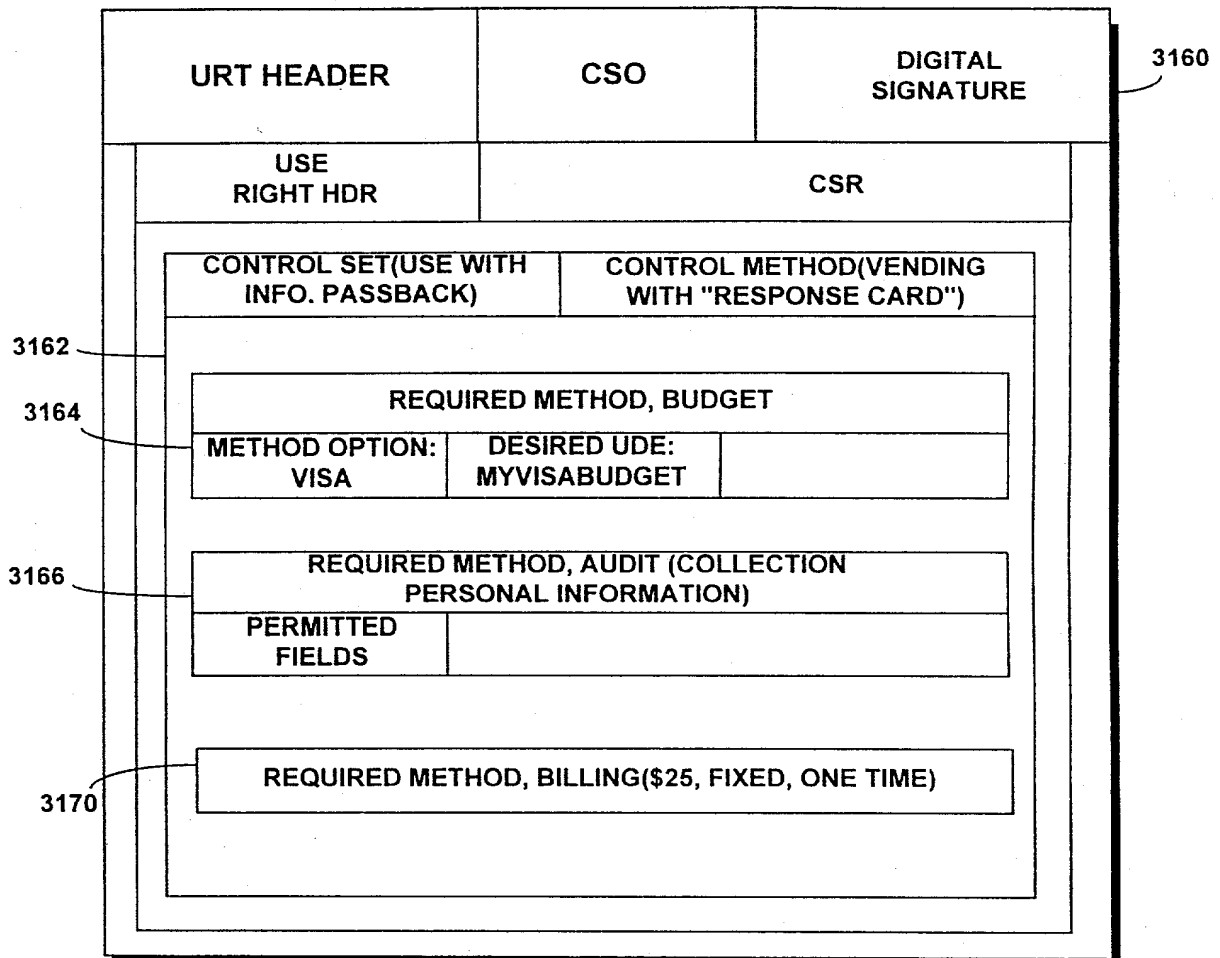
**FIG. 75B**

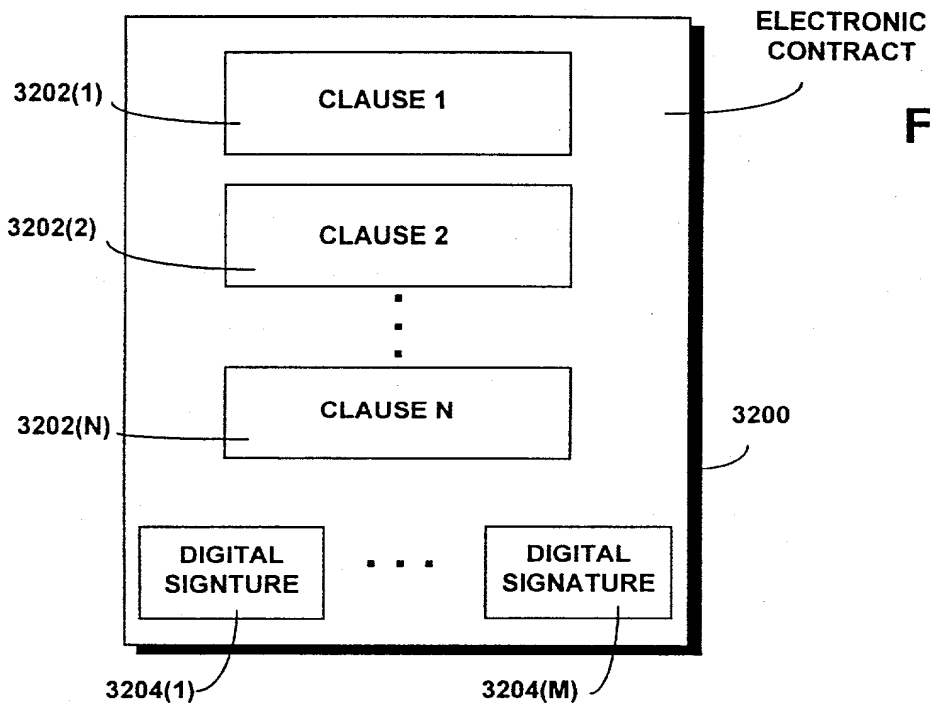


# FIG. 75C

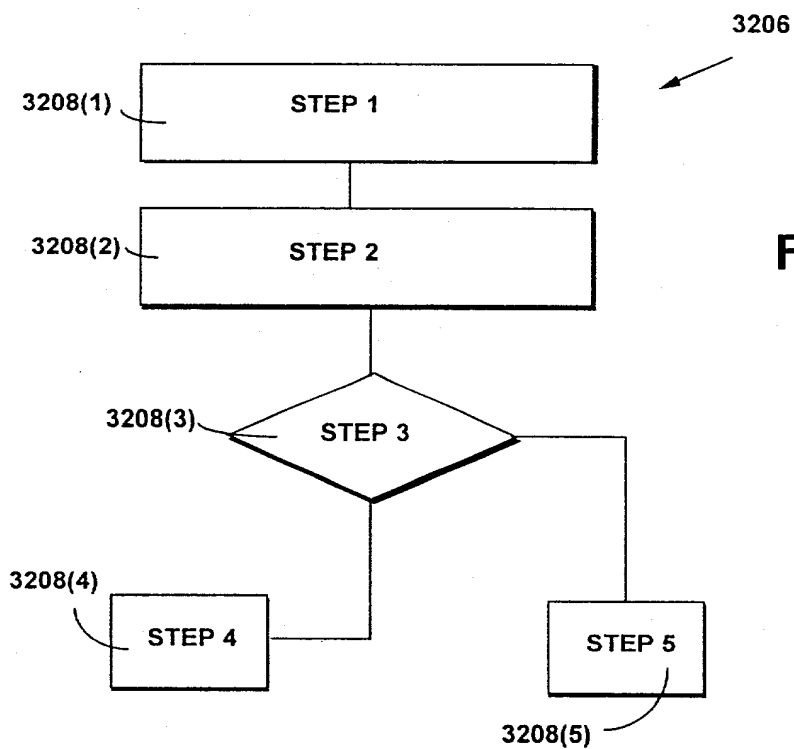


**FIG. 75D**





**FIG. 75E**



**FIG. 75F**

FIG. 76A

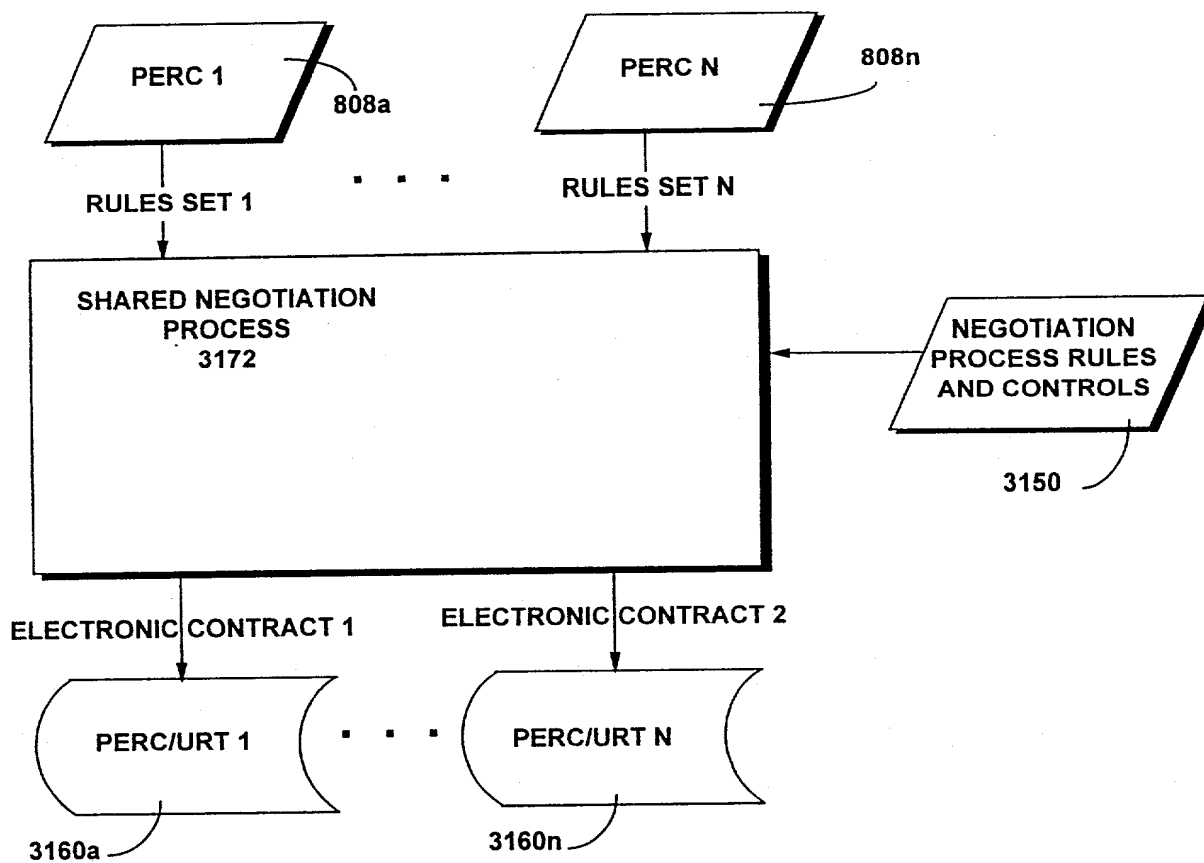
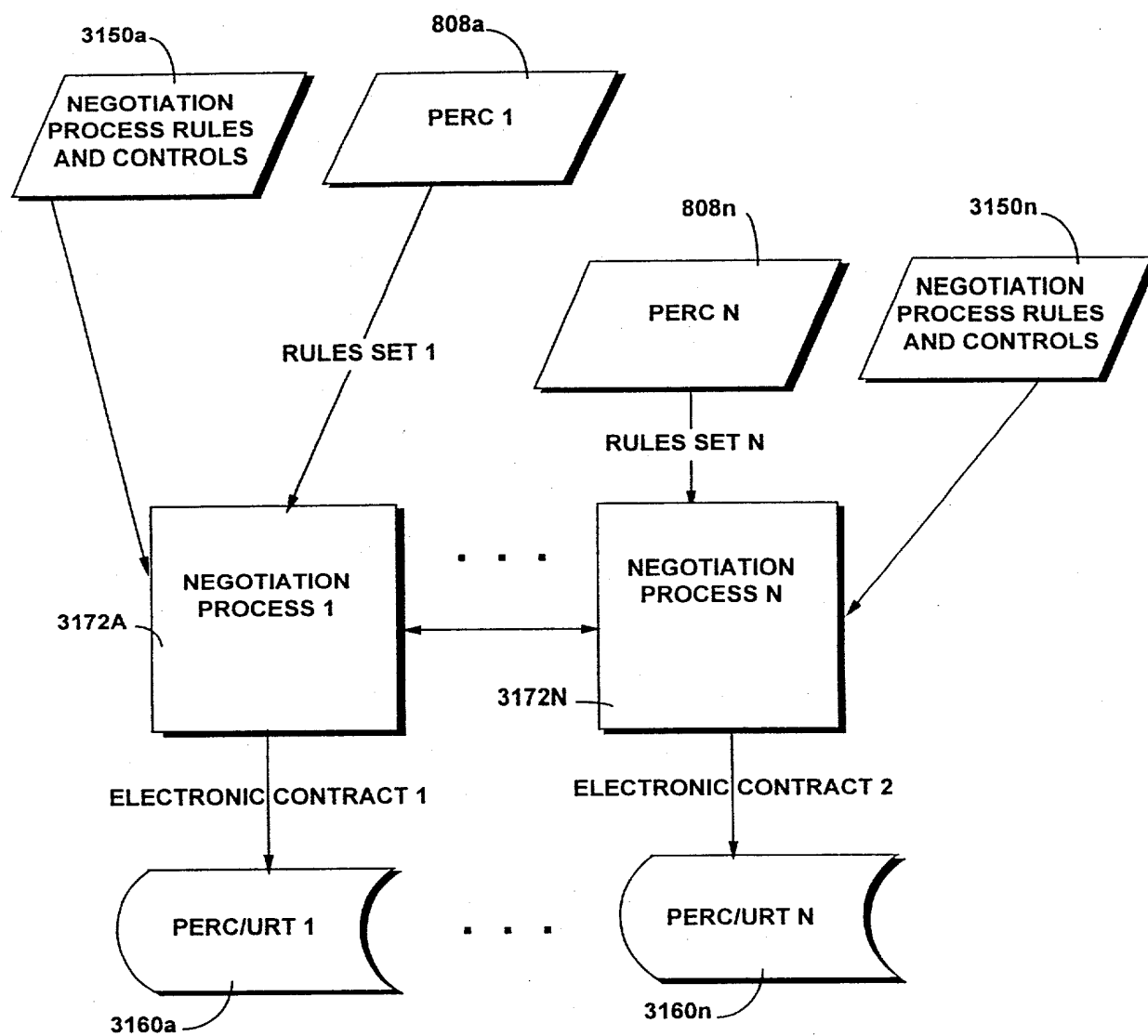
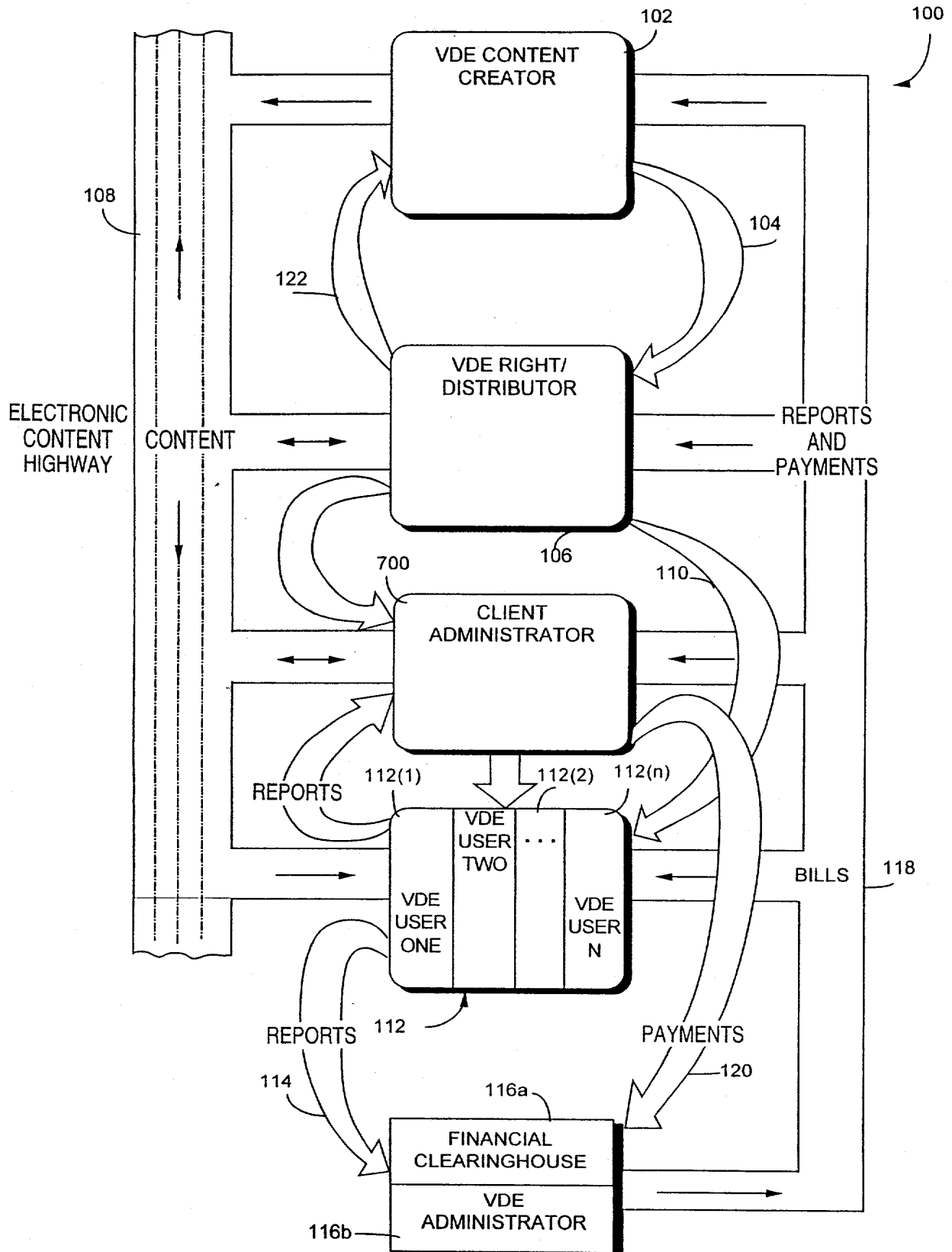


FIG. 76B





**FIG. 77**



3302 3304 3306 3308 3310 3312 3314 3316 3318 3320 3322 3324 3326 3328 3330 3332 3334 3336 3338 3340 3342 3344 3346 3348 3350 3352 3354 3356 3358 3360 3362 3364 3366 3368 3370 3372 3374 3376 3378 3380 3382 3384 3386 3388 3390 3392 3394 3396 3398 3400 3402 3404 3406 3408 3410 3412 3414 3416 3418 3420 3422 3424 3426 3428 3430 3432 3434 3436 3438 3440 3442 3444 3446 3448 3450 3452 3454 3456 3458 3460 3462 3464 3466 3468 3470 3472 3474 3476 3478 3480 3482 3484 3486 3488 3490 3492 3494 3496 3498 3500 3502 3504 3506 3508 3510 3512 3514 3516 3518 3520 3522 3524 3526 3528 3530 3532 3534 3536 3538 3540 3542 3544 3546 3548 3550 3552 3554 3556 3558 3560 3562 3564 3566 3568 3570 3572 3574 3576 3578 3580 3582 3584 3586 3588 3590 3592 3594 3596 3598 3600 3602 3604 3606 3608 3610 3612 3614 3616 3618 3620 3622 3624 3626 3628 3630 3632 3634 3636 3638 3640 3642 3644 3646 3648 3650 3652 3654 3656 3658 3660 3662 3664 3666 3668 3670 3672 3674 3676 3678 3680 3682 3684 3686 3688 3690 3692 3694 3696 3698 3700 3702 3704 3706 3708 3710 3712 3714 3716 3718 3720 3722 3724 3726 3728 3730 3732 3734 3736 3738 3740 3742 3744 3746 3748 3750 3752 3754 3756 3758 3760 3762 3764 3766 3768 3770 3772 3774 3776 3778 3780 3782 3784 3786 3788 3790 3792 3794 3796 3798 3800 3802 3804 3806 3808 3810 3812 3814 3816 3818 3820 3822 3824 3826 3828 3830 3832 3834 3836 3838 3840 3842 3844 3846 3848 3850 3852 3854 3856 3858 3860 3862 3864 3866 3868 3870 3872 3874 3876 3878 3880 3882 3884 3886 3888 3890 3892 3894 3896 3898 3900 3902 3904 3906 3908 3910 3912 3914 3916 3918 3920 3922 3924 3926 3928 3930 3932 3934 3936 3938 3940 3942 3944 3946 3948 3950 3952 3954 3956 3958 3960 3962 3964 3966 3968 3970 3972 3974 3976 3978 3980 3982 3984 3986 3988 3990 3992 3994 3996 3998 4000

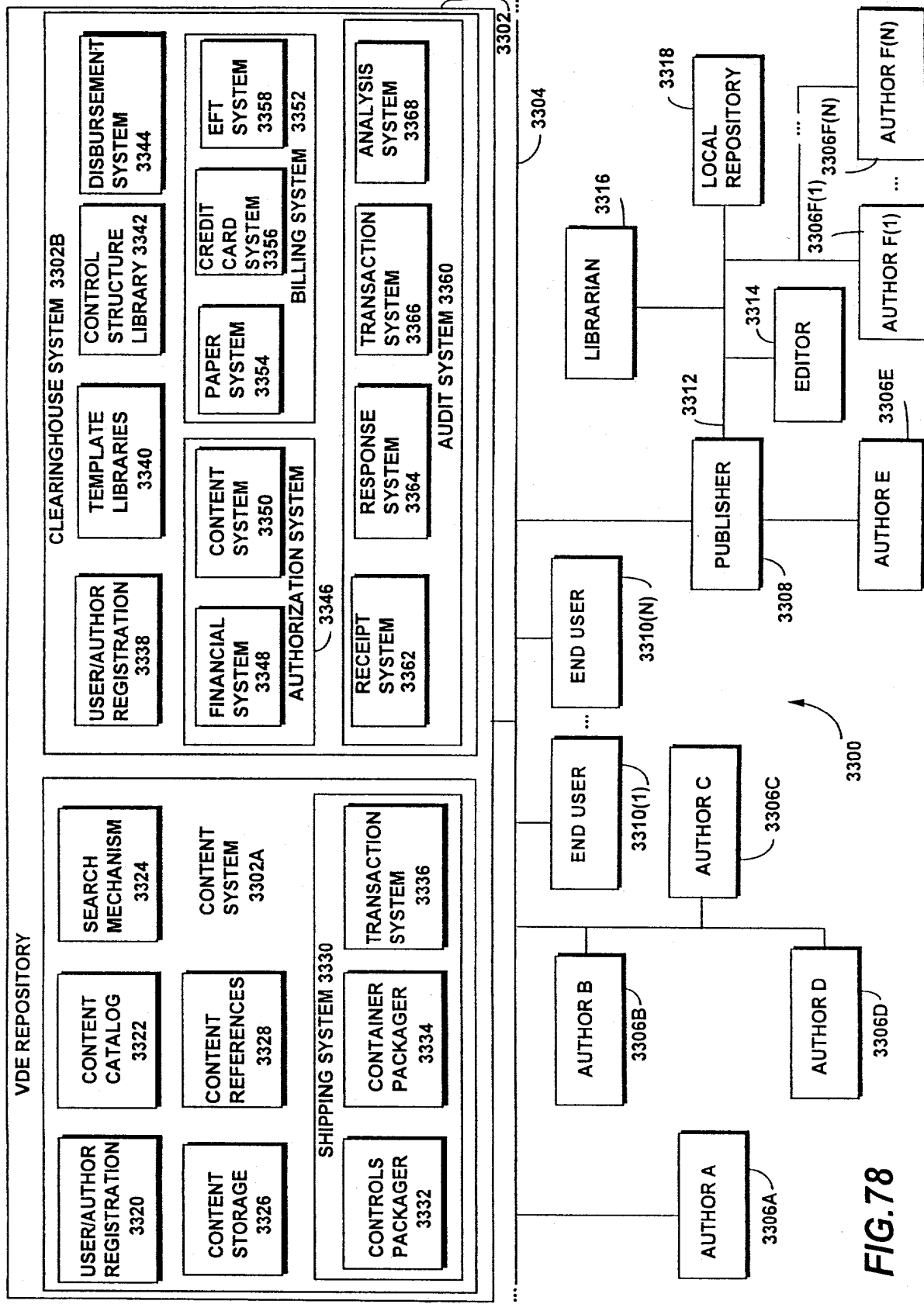
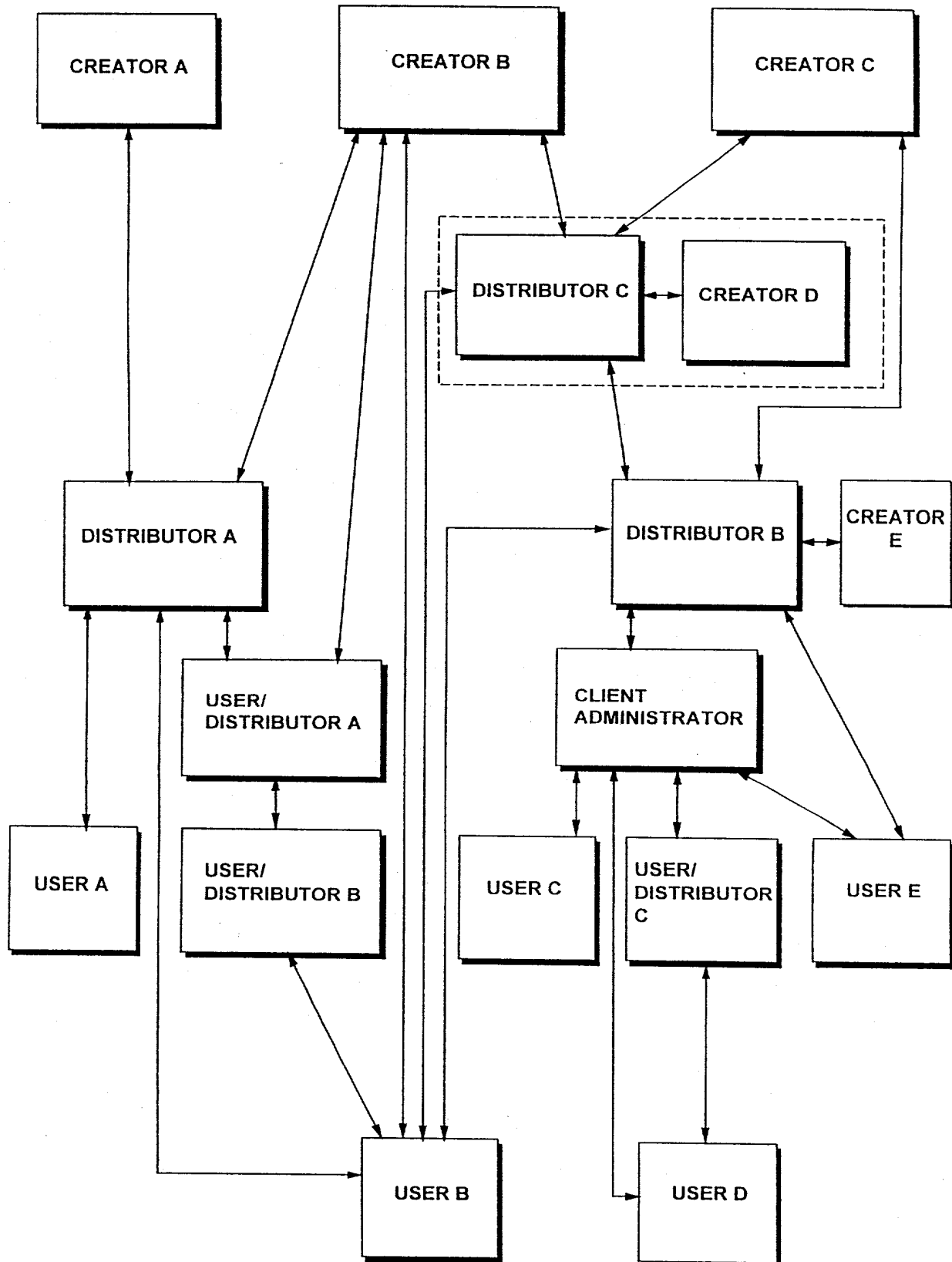


FIG.78

**FIG. 79**



**FIG. 80**

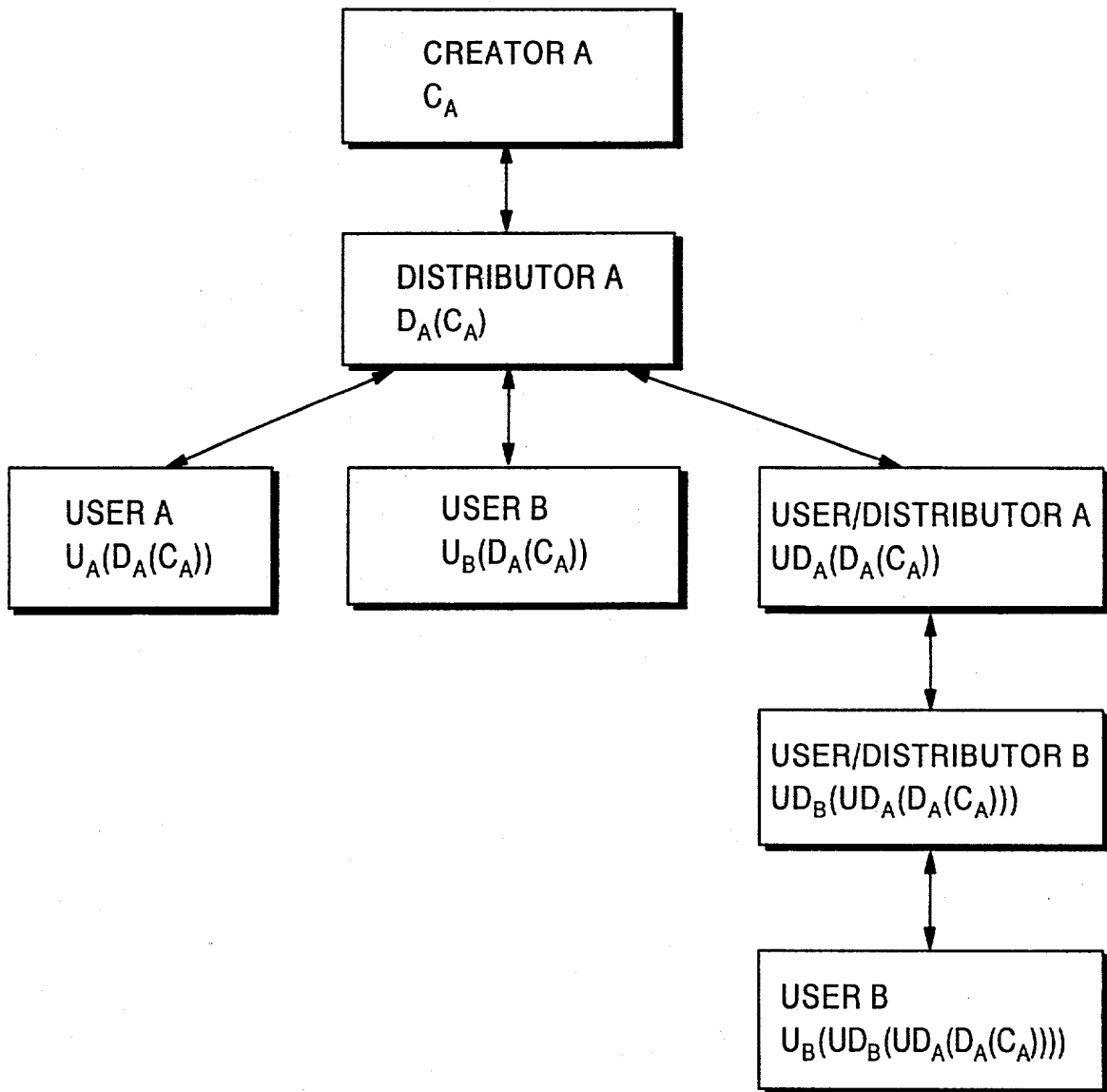
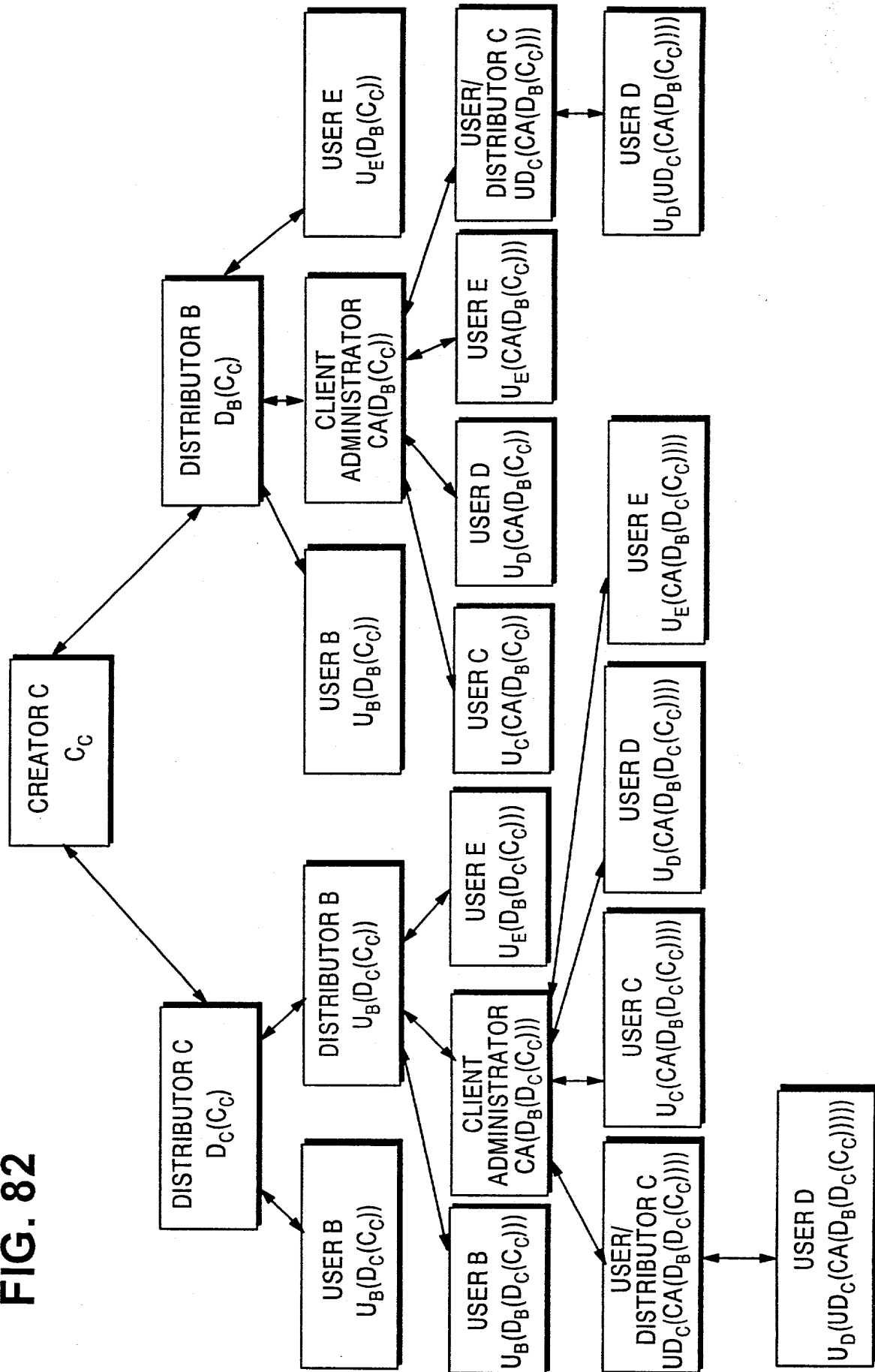




FIG. 82



**FIG. 83**

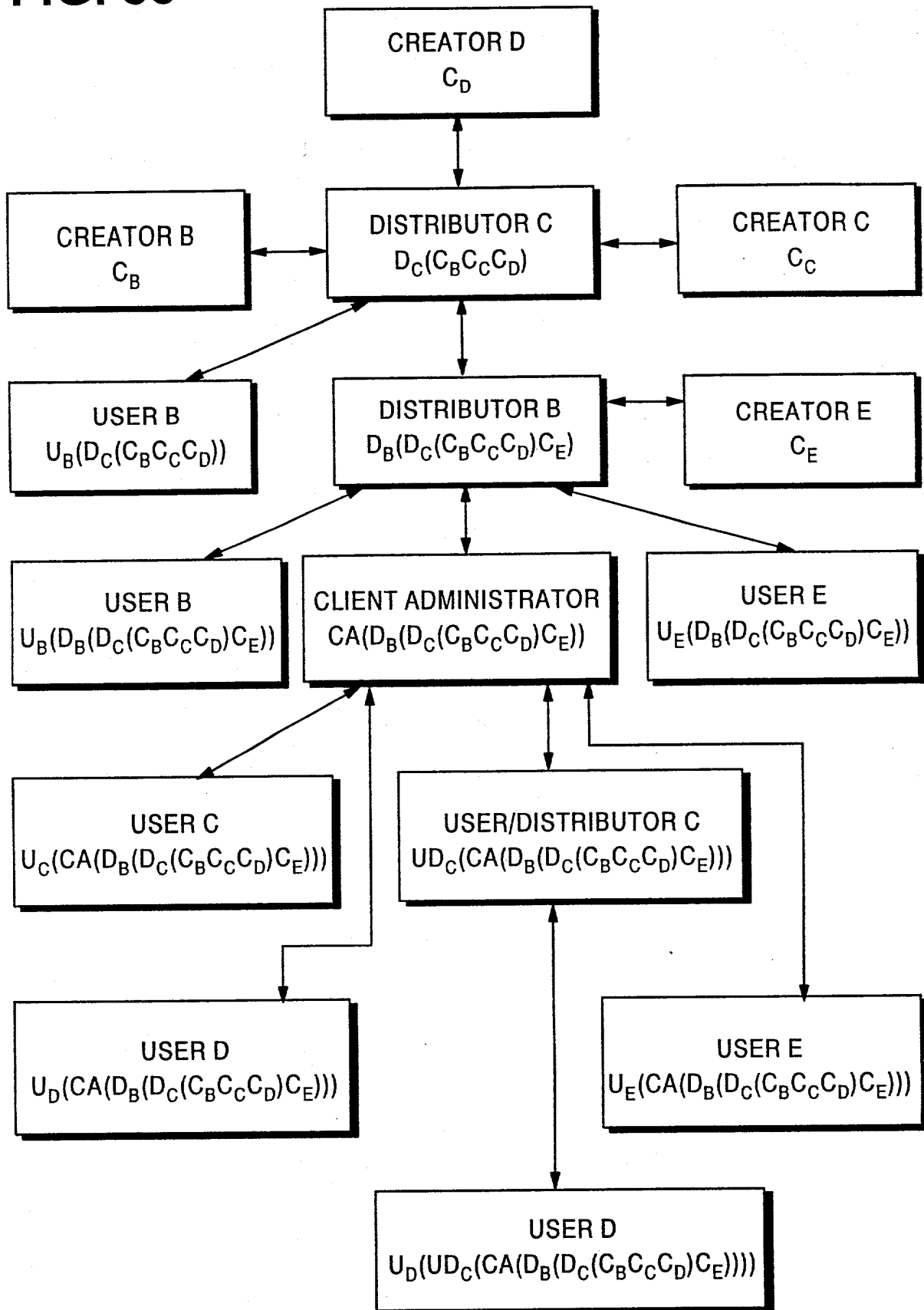
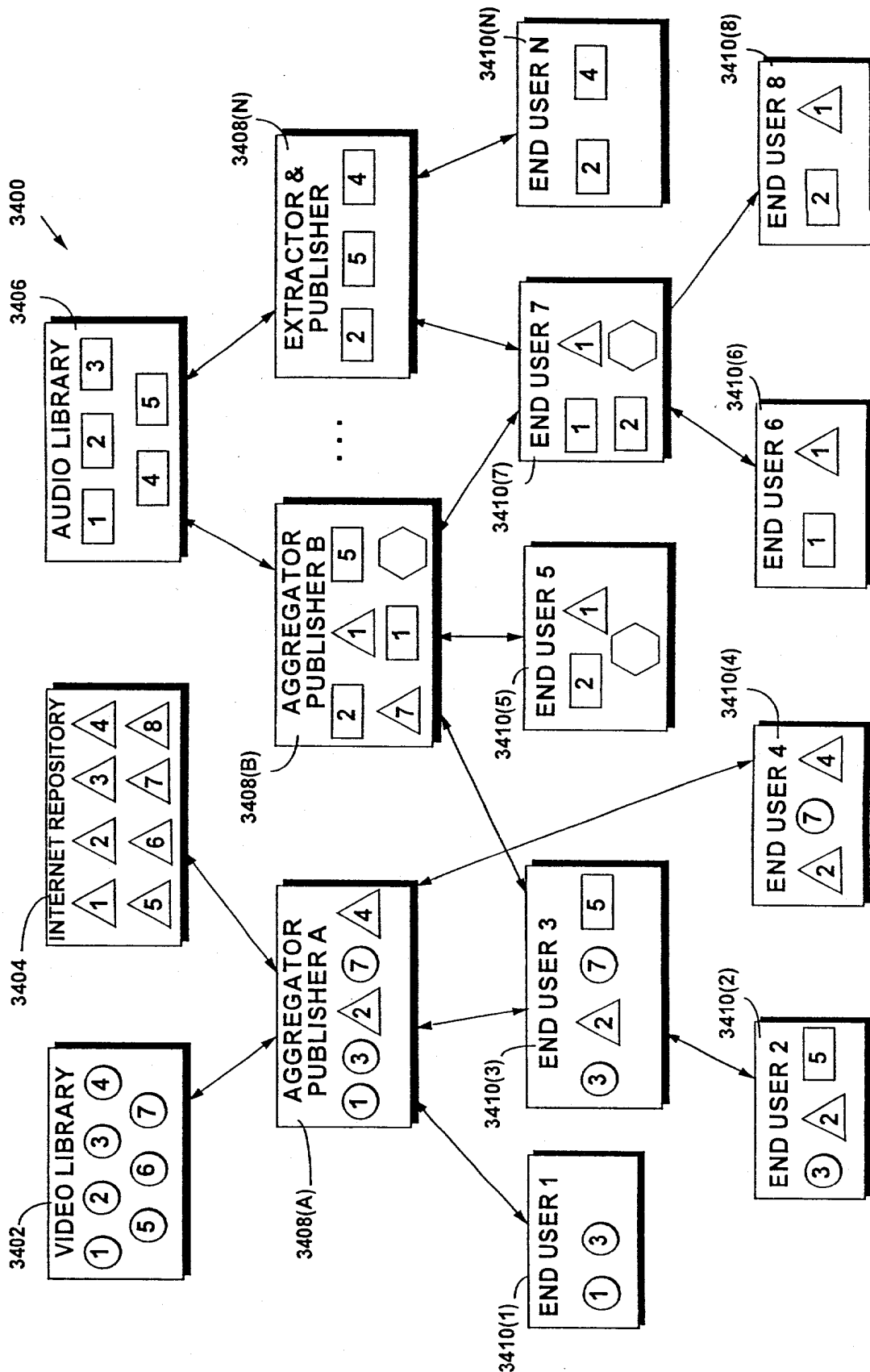
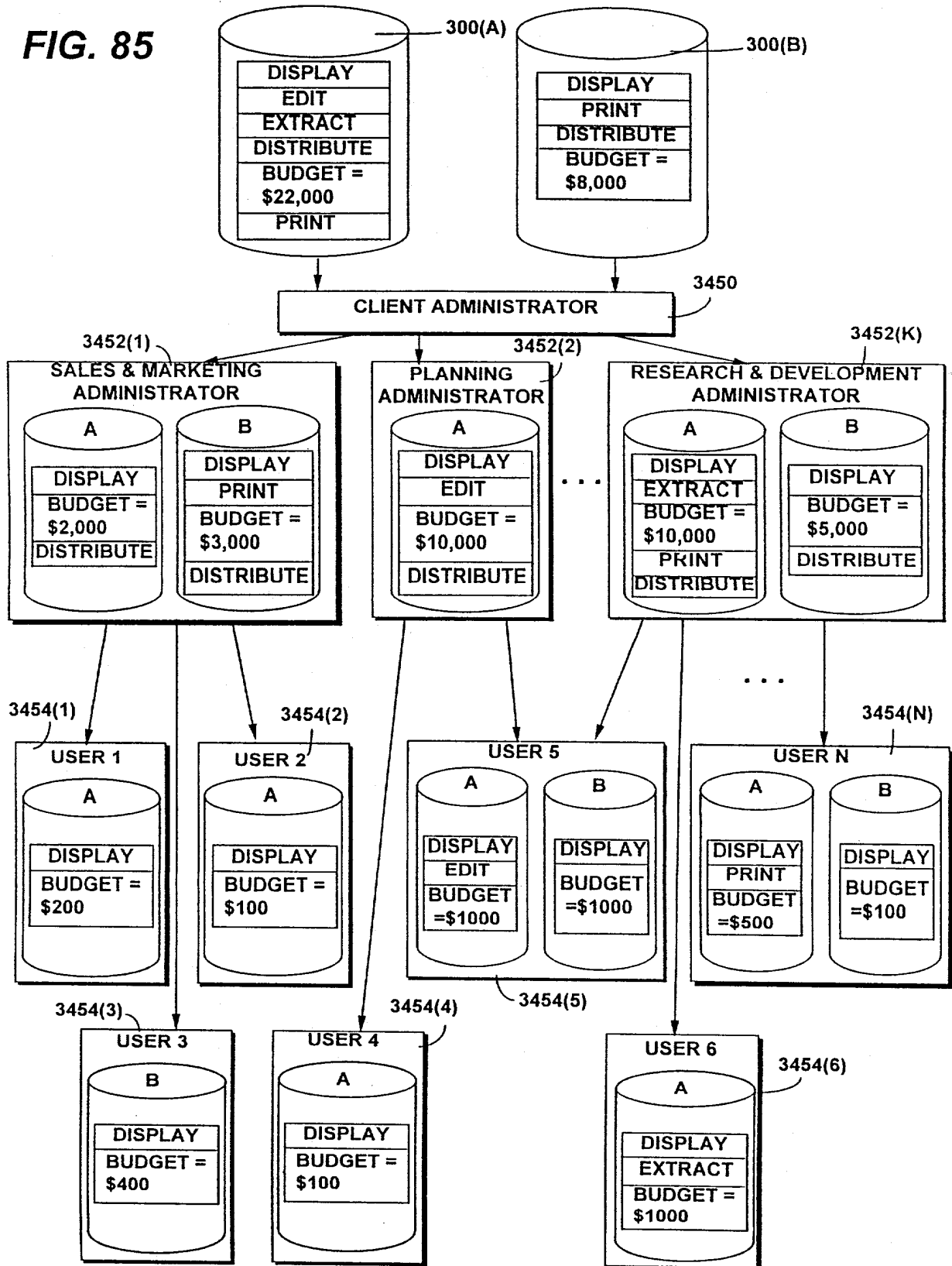


FIG. 84





**FIG. 85**



**FIG. 86**

FIG. 86 is a block diagram of a content distribution system. The system includes three users (112a, 112b, 112c) connected to a central bus. The bus carries 'USAGE PERMISSIONS' and 'CONTENT'. A 'CREATOR 102' is connected to the bus and provides 'UNENCRYPTED CONTENT'. A 'DISTRIBUTION PERMISSION' block is connected to the bus and the creator. A '3500' block is connected to the bus and the distribution permission block. A '3502' block is connected to the distribution permission block and the bus. A '700' block is connected to the bus and the distribution permission block. A '200g' block is connected to the bus and the distribution permission block. A 'CONTENT & REDISTRIBUTION PERMISSIONS' block is connected to the bus and the distribution permission block.

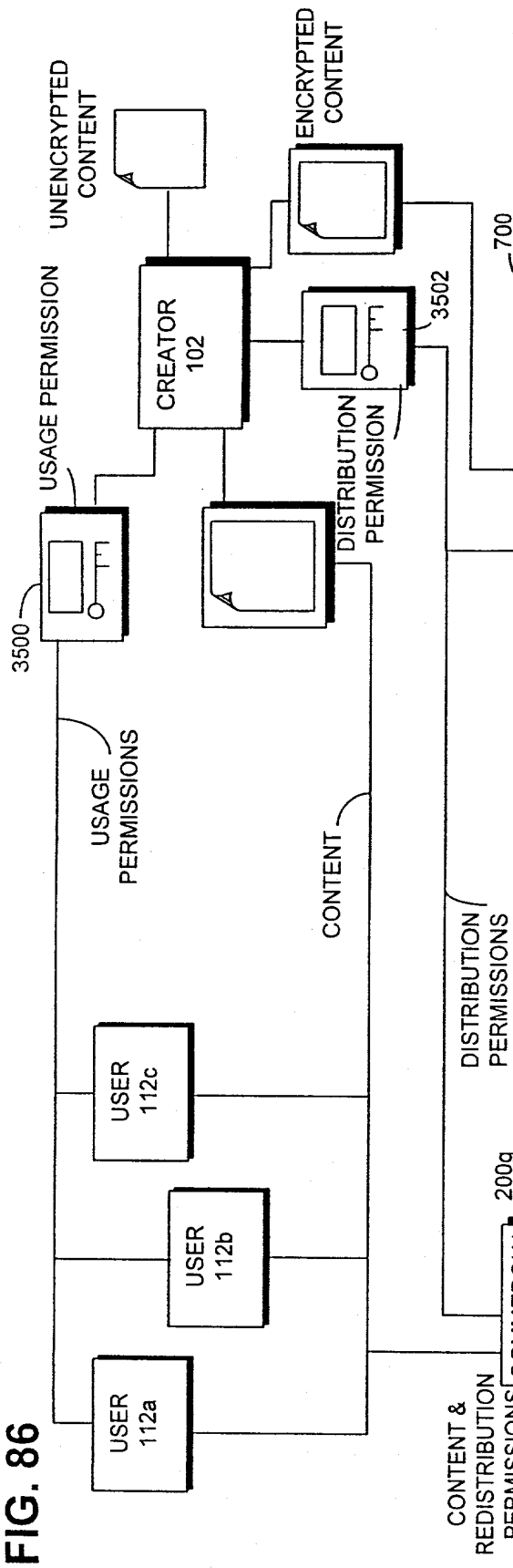


FIG. 86A

ENCIPHERMENT LAYER

KEY

PERMISSION RULES & CONTROLS

CONTENT REPOSITORY

USAGE PERMISSIONS

USER 112g

USER 112h

USER 112i

USER 112j

USER 112k

DEPT. CONTENT REPOSITORY 704

CONTENT REPOSITORY 704

CONTENT REPOSITORY

USAGE PERMISSIONS

POWER USER 3504

DESKTOP

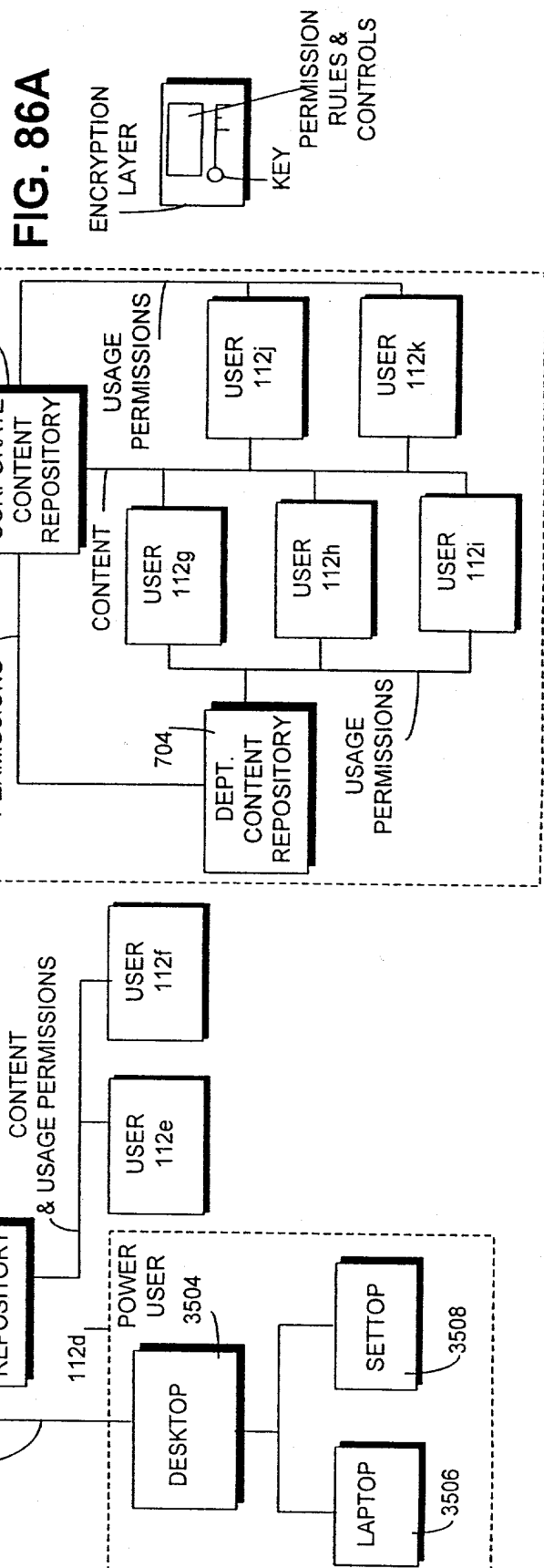
LAPTOP 3506

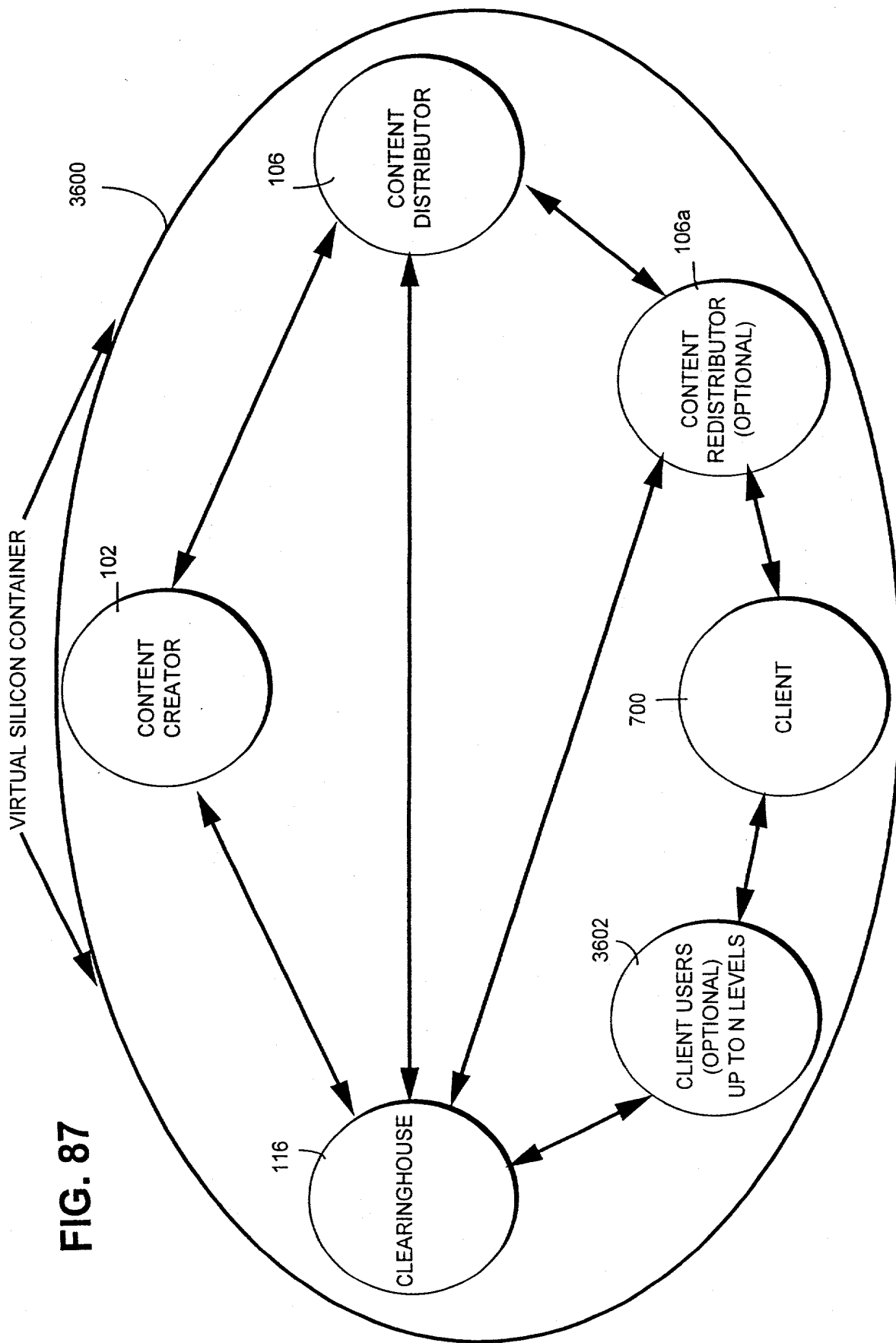
SETUP 3508

USER 112e

USER 112f

112d





**FIG. 87**

FIG. 88 Defective or "Bogus" Load Modules Can Cause Problems

FIG. 88 Defective or "Bogus" Load Modules Can Cause Problems

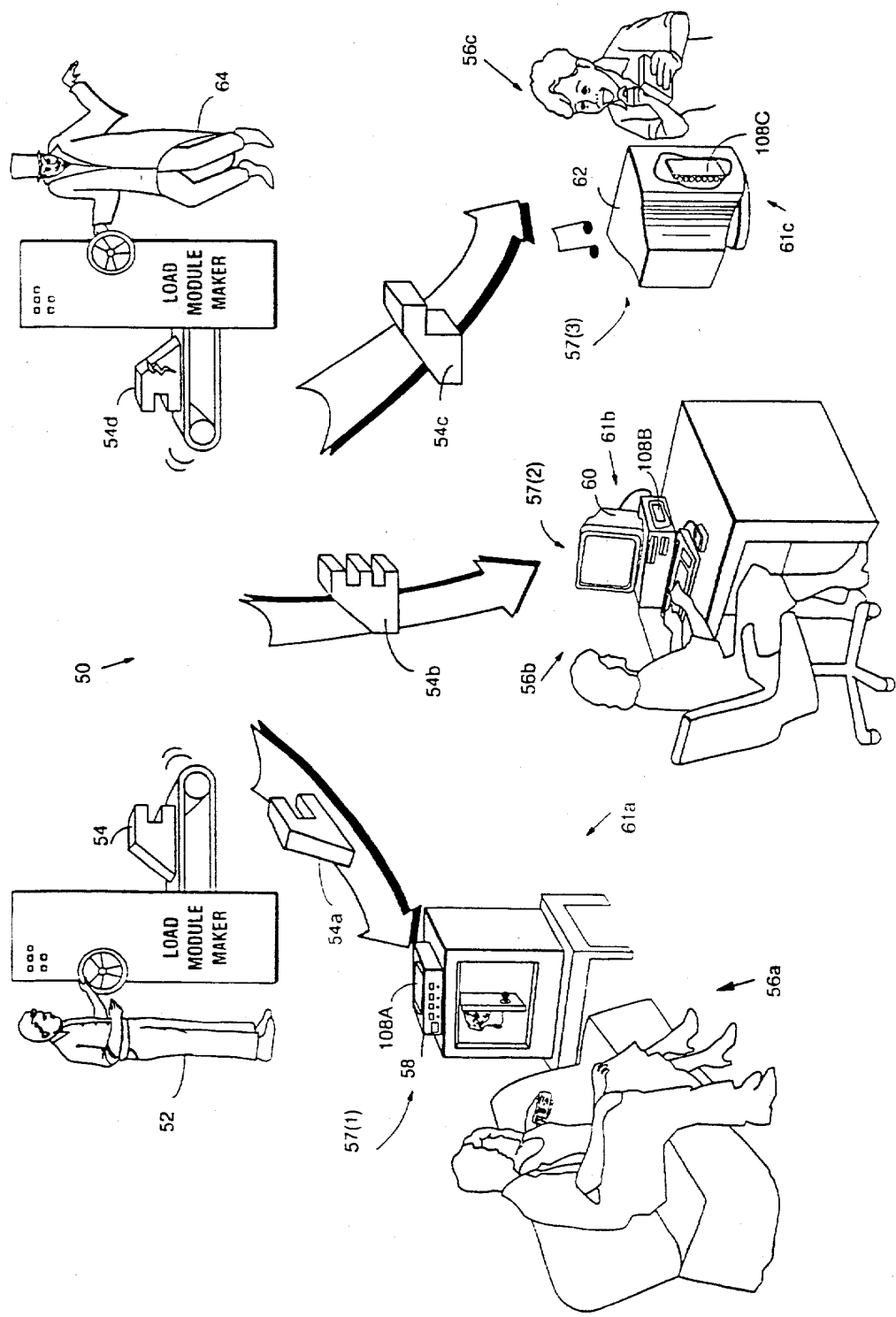
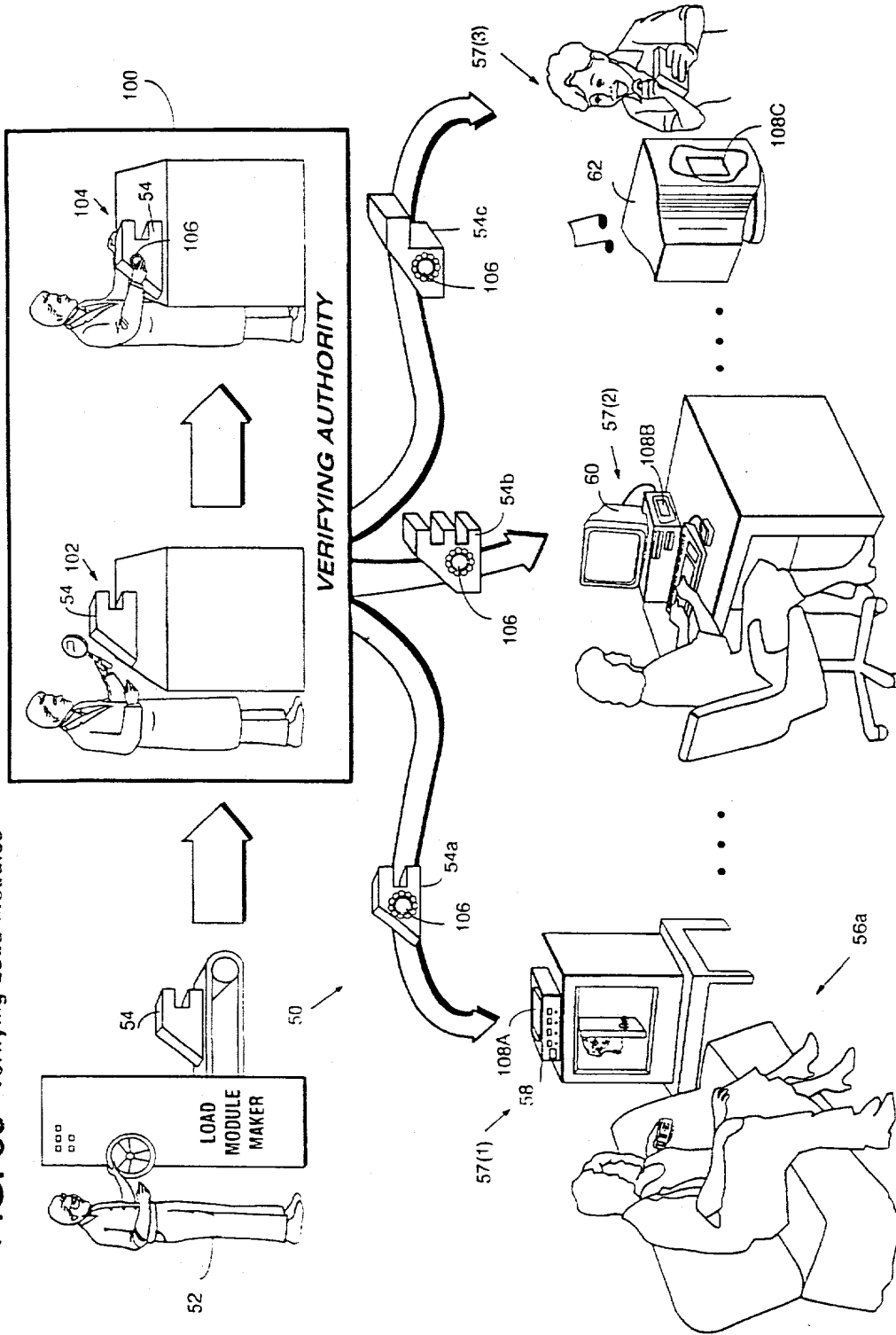
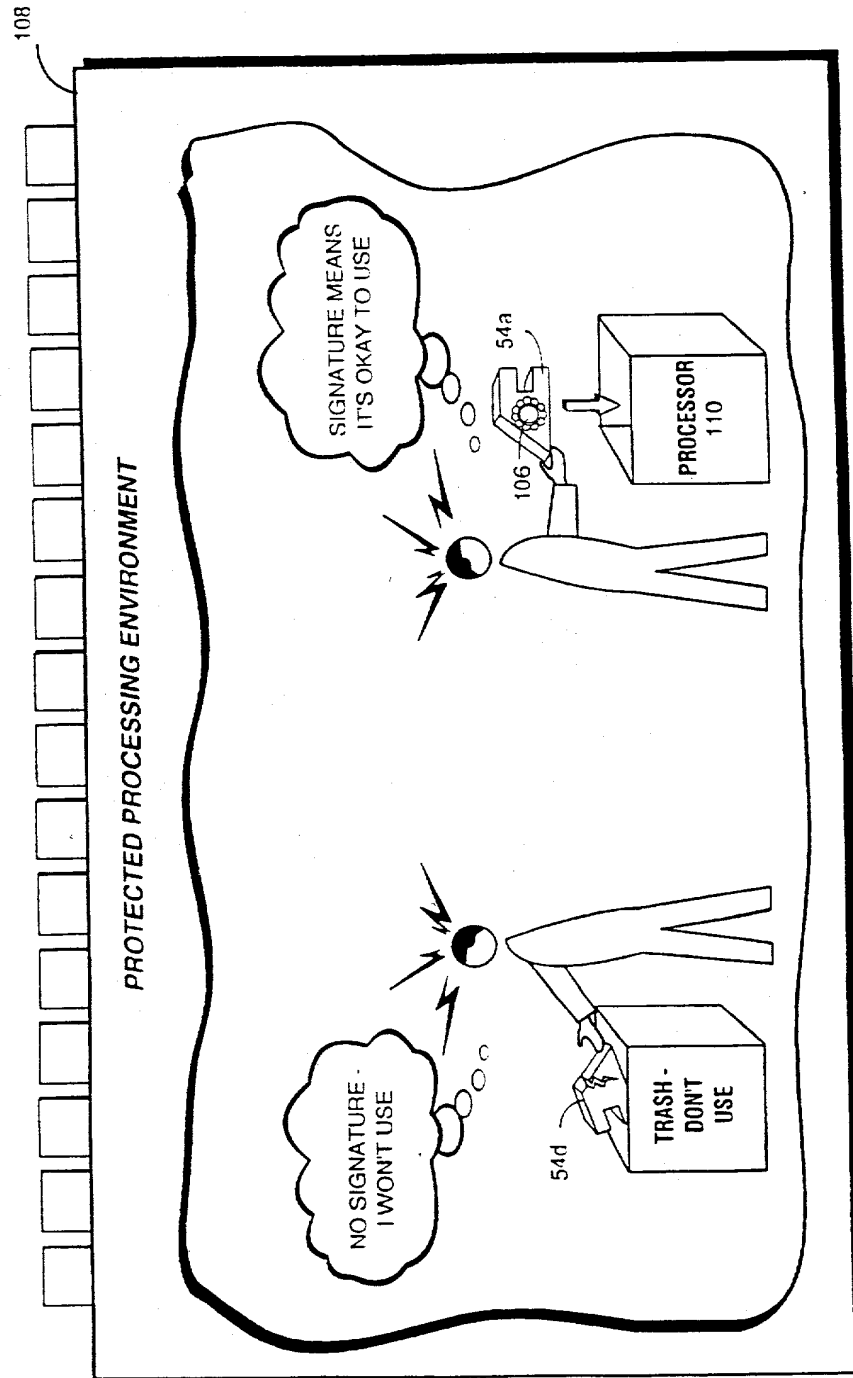
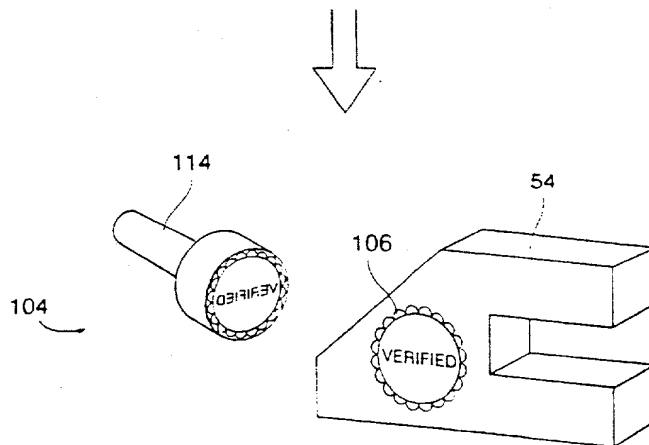
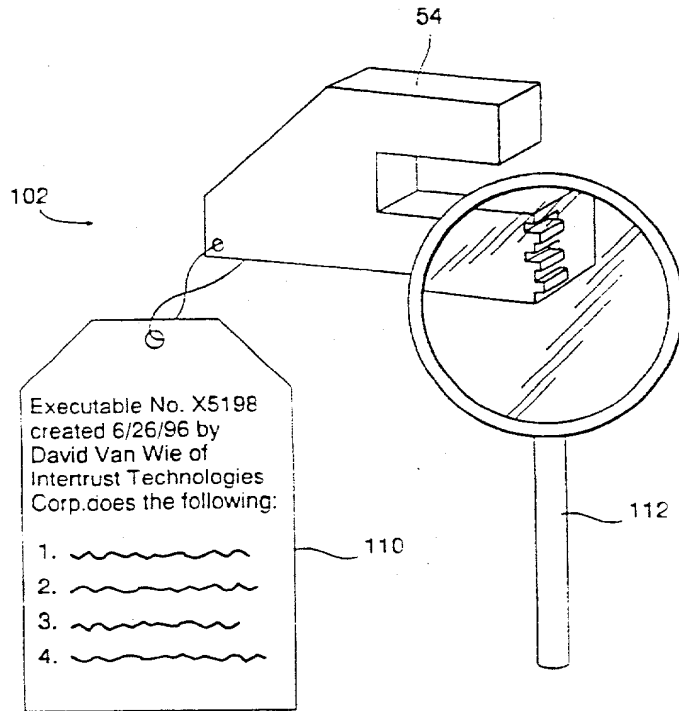


FIG. 89 Verifying Load Modules

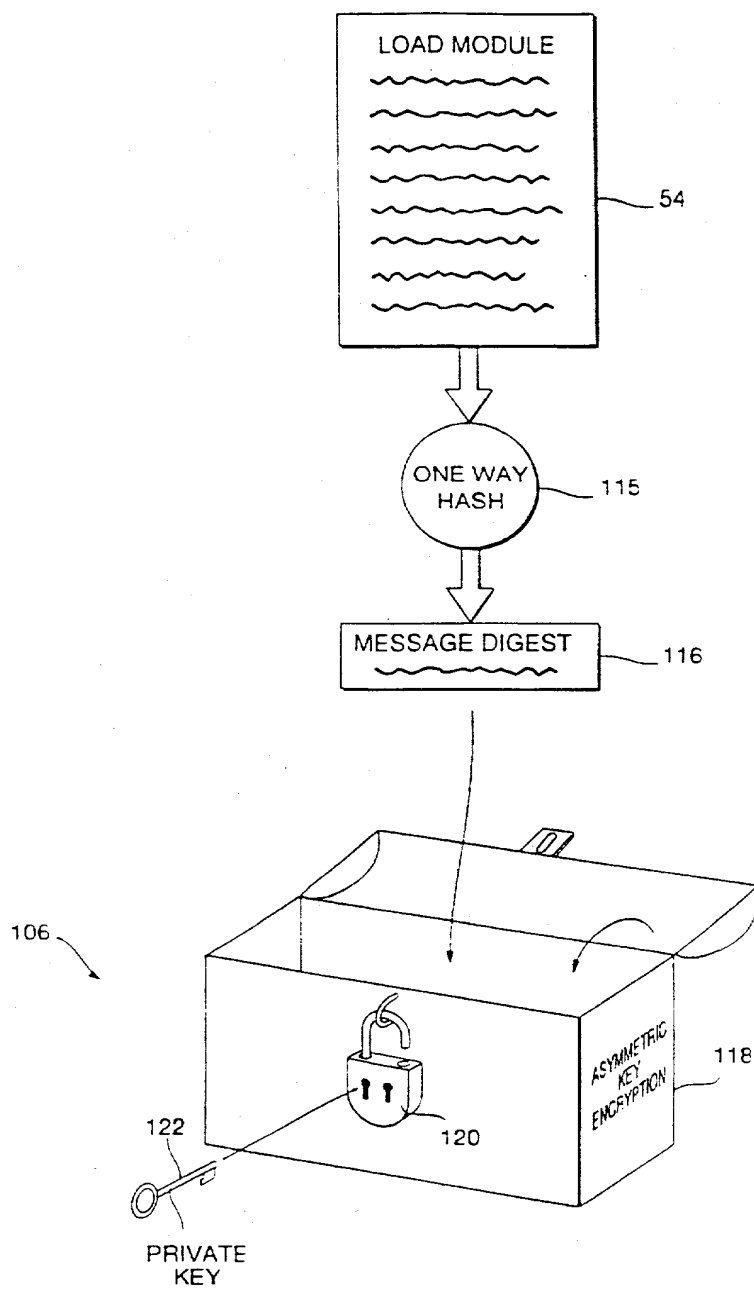


**FIG. 90** Before Protected Processing Environment Uses A Load Module, It Checks To See If Load Module Has Been Verified





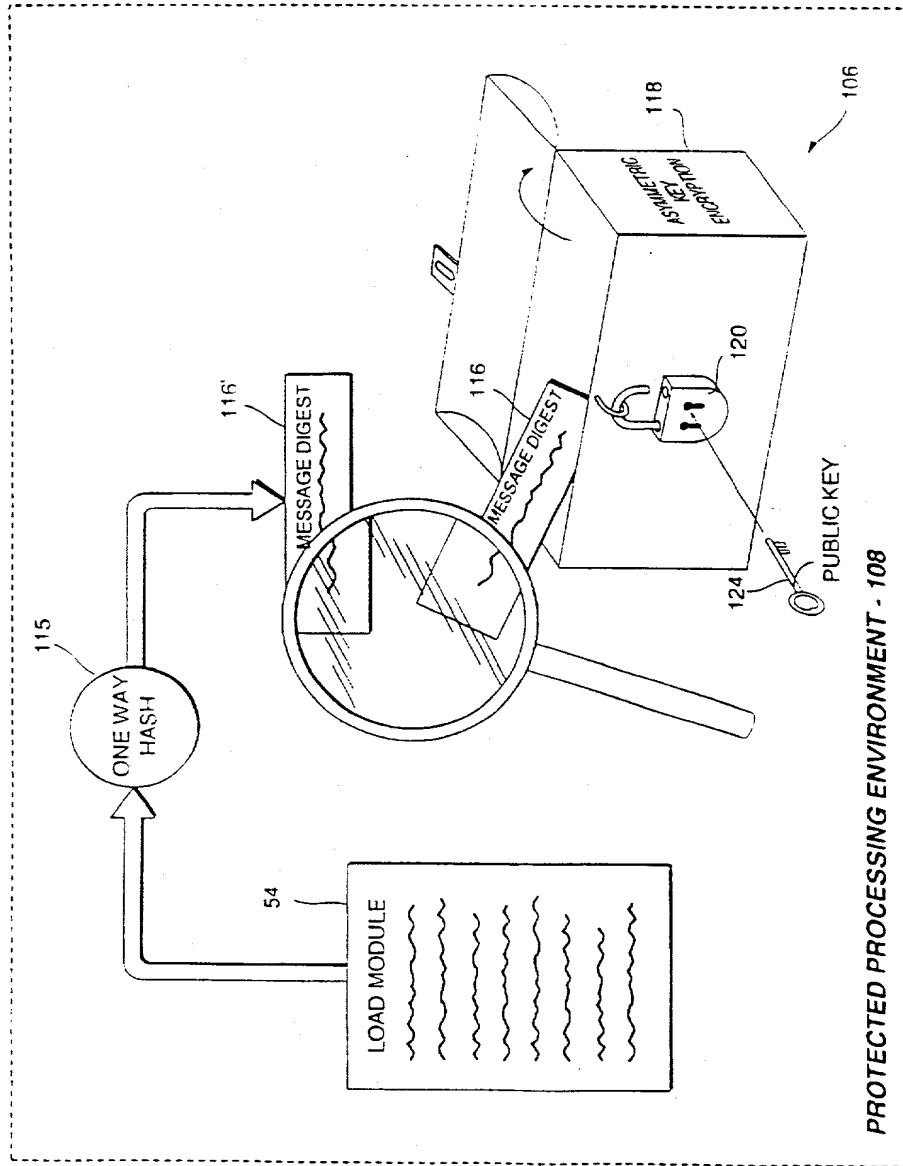
**FIG. 91**  
**Certifying Load Module by**  
**Checking it Against its Documentation**



**FIG. 92**  
**Creating a Certifying**  
**Digital Signature**

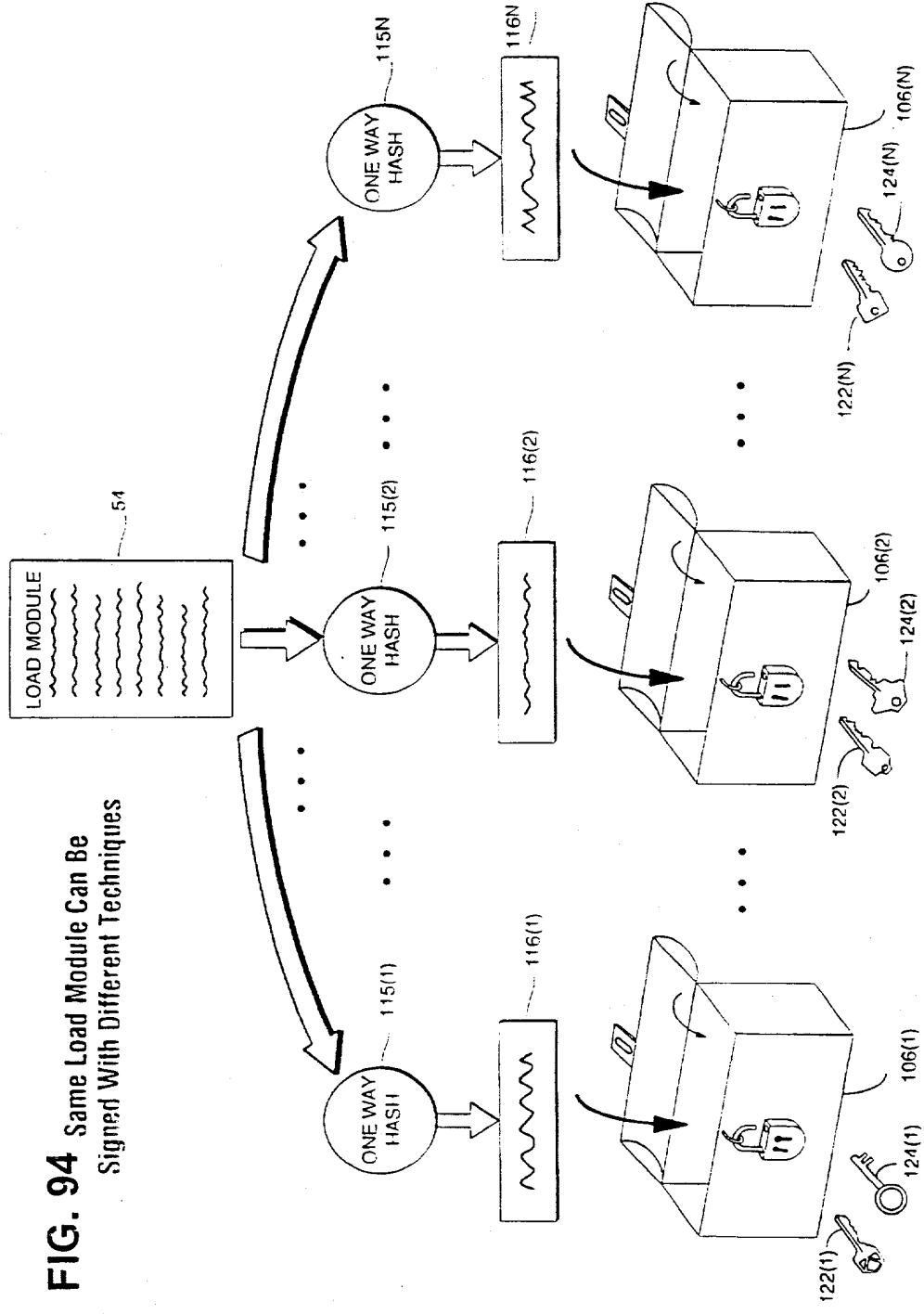


FIG. 93 is a block diagram of a system for authenticating a digital signature. The system includes a load module 54, a one-way hash function 115, a message digest 116, a public key 106, and a protected processing environment 108. The load module 54 outputs data to the one-way hash function 115, which generates a message digest 116. The message digest 116 is then used to authenticate a digital signature within the protected processing environment 108.

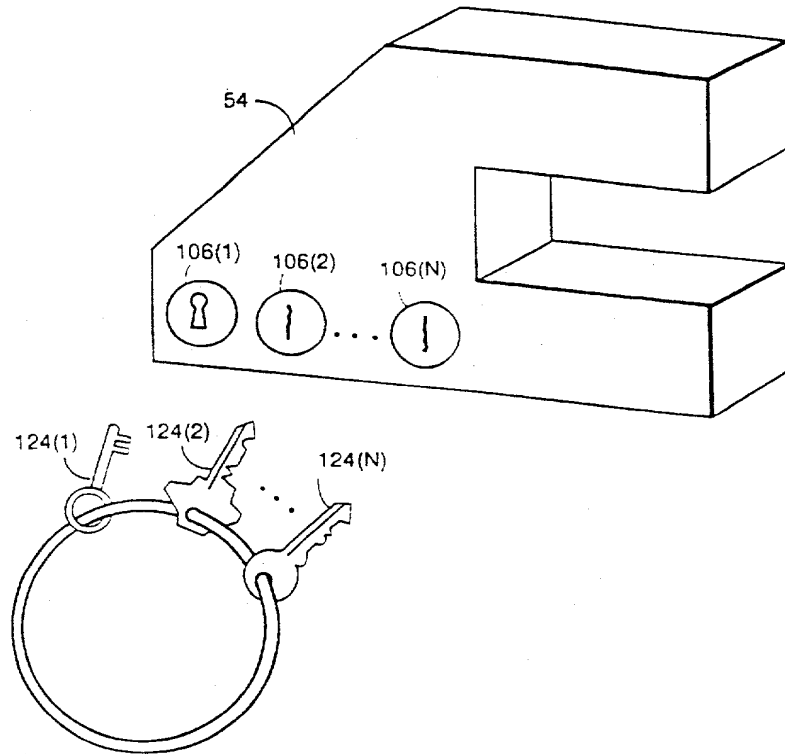


**FIG. 93** Authenticating a Digital Signature

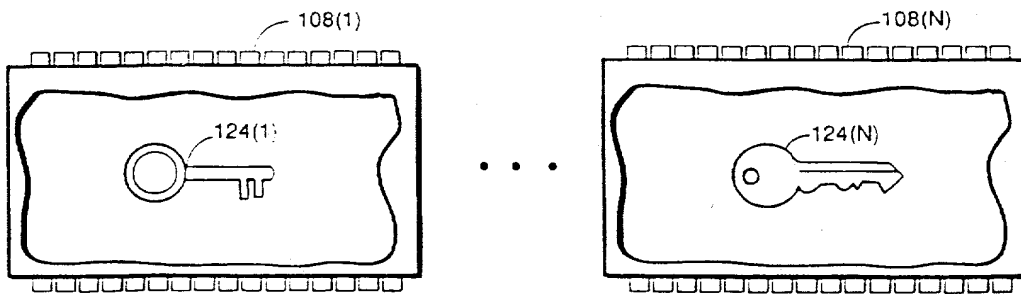
FIG. 94 Same Load Module Can Be Signed With Different Techniques



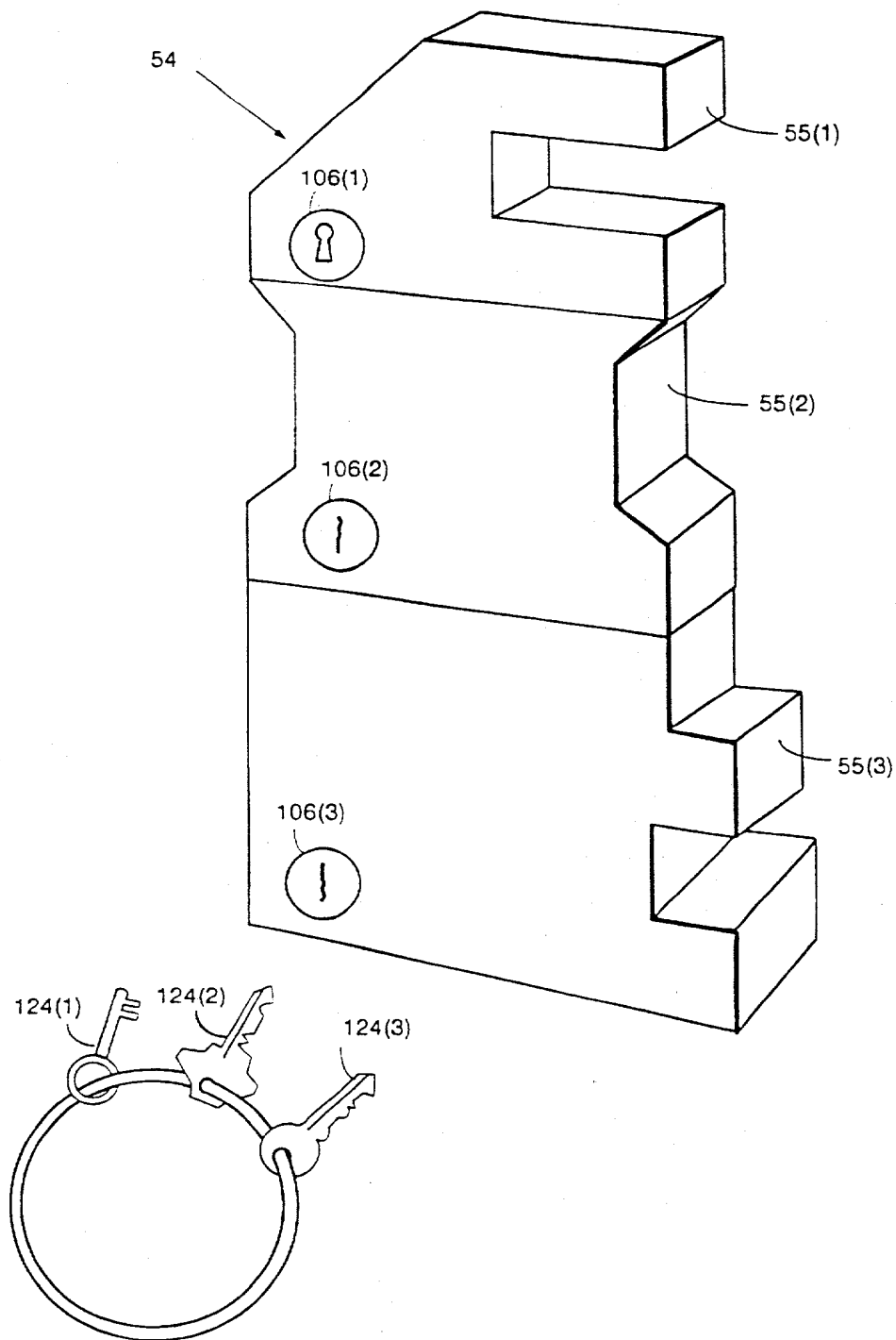
**FIG. 95** Same Load Module Can Be Distributed with Multiple Signatures

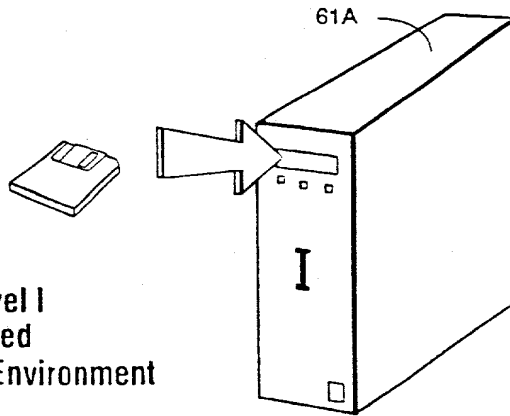


**FIG. 95A** Different Processing Environments Can Have Different Subsets of Keys

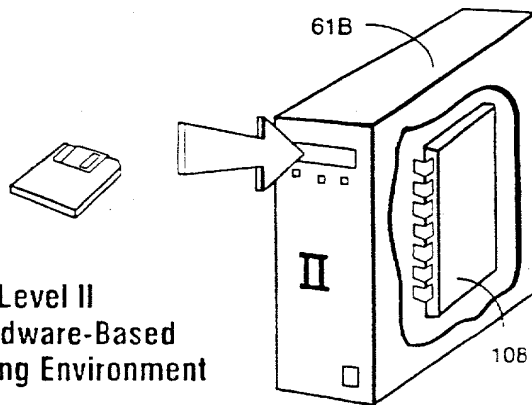


**FIG. 96** Load Module Can Have Several Independently Signed Portions

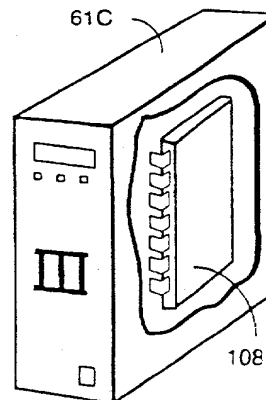




**FIG. 97A** Assurance Level I  
Software-Based  
Protected Processing Environment

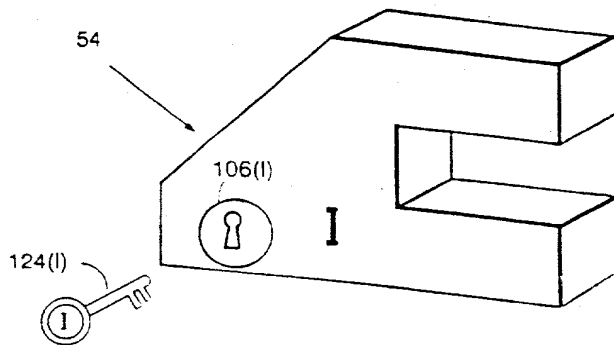


**FIG. 97B** Assurance Level II  
Software and Hardware-Based  
Protected Processing Environment

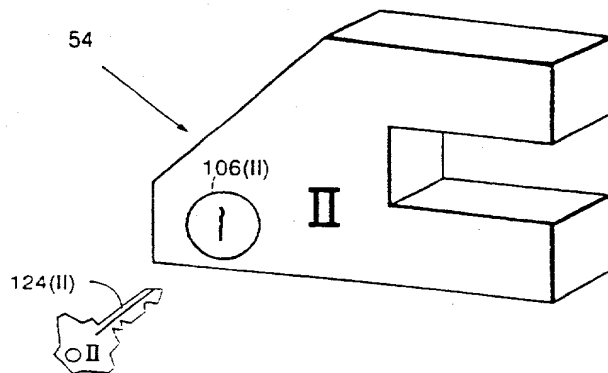


**FIG. 97C** Assurance Level III  
Hardware-Based  
Protected Processing Environment

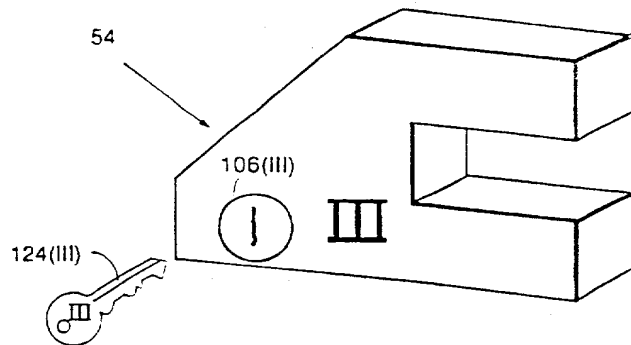
**FIG. 98A** Level I  
Digital Signature



**FIG. 98B** Level II  
Digital Signature



**FIG. 98C** Level III  
Digital Signature





### FIG. 100 Multiple Assurance Levels

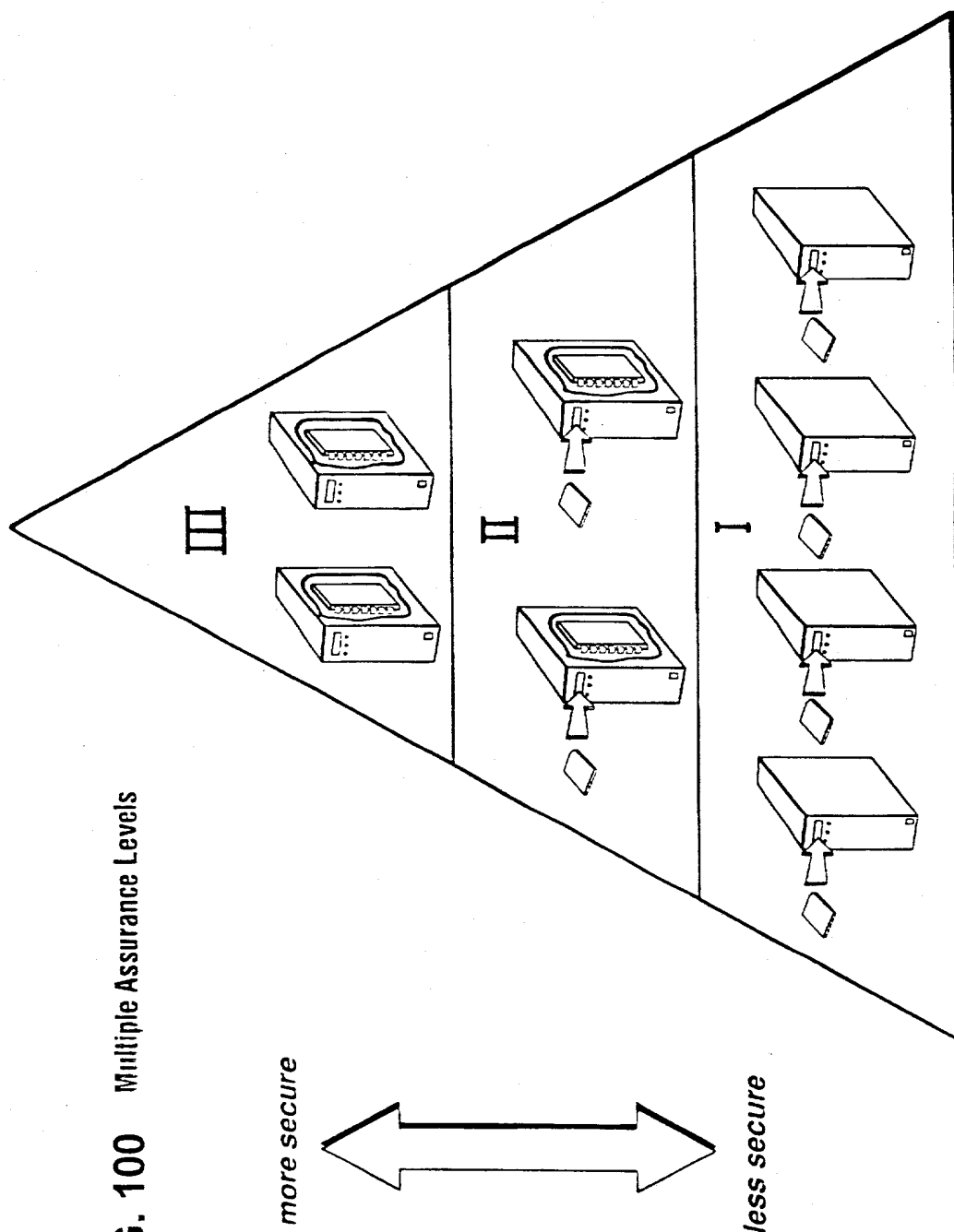




FIG. 100A

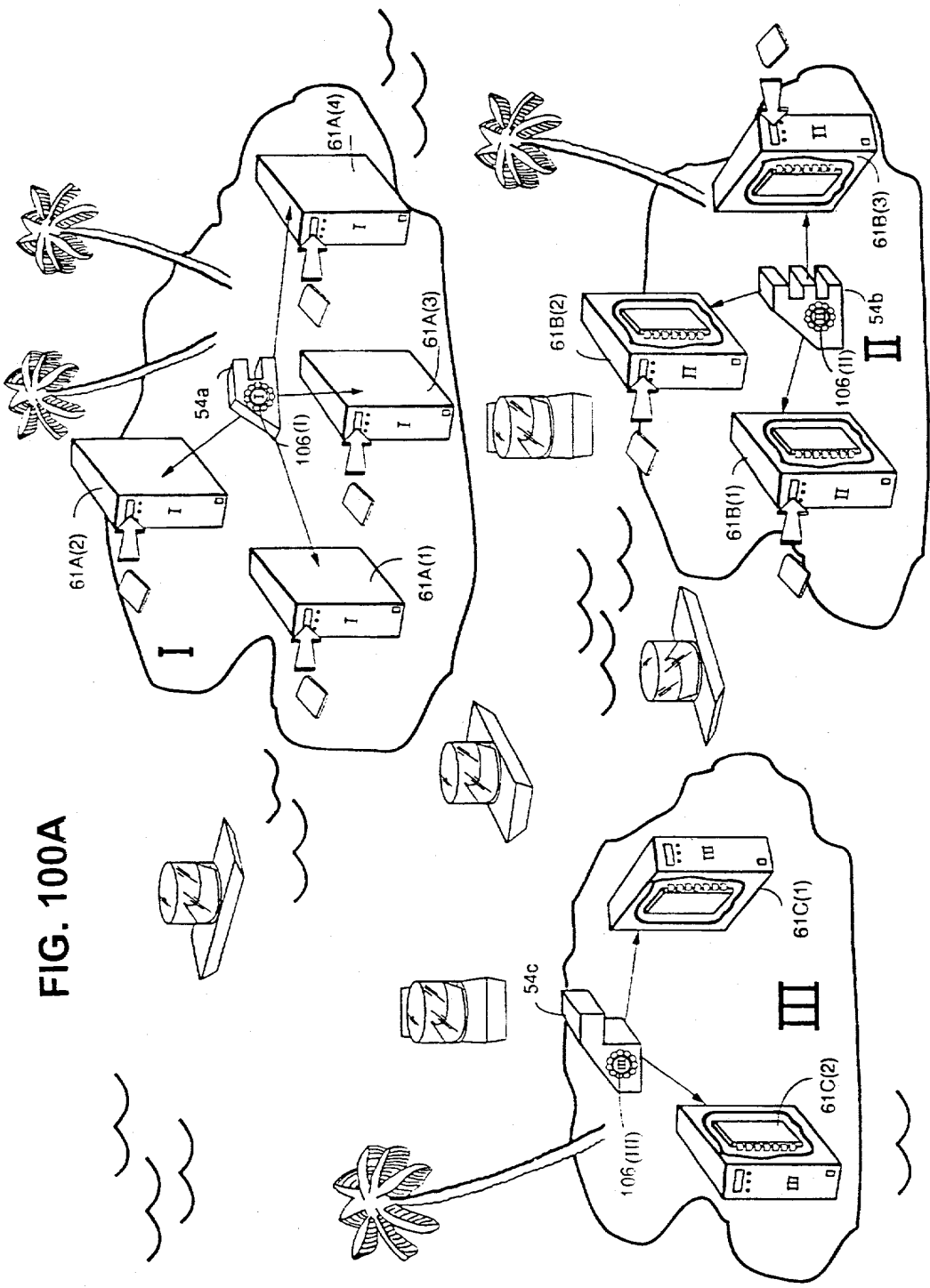


FIG. 100A

*Provider of Executables*

**FIG. 101**

